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AT SEATTLE
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WESTERN DISTRICT OF WASHINGTON
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BY

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WASHINGTON

UNITED STATES OF AMERICA

Plaintiffs,

v.

ADVANCE ROSS SUB COMPANY,
a Delaware corporation; PACIFICORP,
an Oregon corporation; and PUGET
SOUND ENERGY, a Washington
corporation,

Defendants.

Civil Action No.

C03-5117 RJE

RD/RA CONSENT DECREE
THEA FOSS AND WHEELER/OSGOOD
WATERWAYS PROBLEM AREAS
COMMENCEMENT BAY
NEARSHORE/TIDEFLATS SUPERFUND
SITE

CV 03-05117 #00000007

USEPA SF



1266399

CONSENT DECREE
Thea Foss and Wheeler Osgood Waterways Problem Areas
Commencement Bay Nearshore/Tideflats
Superfund Site
Page 1

United States Department of Justice
Environmental & Natural Resources Division
Environmental Enforcement Section
P.O. Box 7611
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Washington, D.C. 20044

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I. BACKGROUND

A. The United States of America ("United States"), on behalf of the Administrator of the United States Environmental Protection Agency ("EPA"), filed a complaint in this matter pursuant to Sections 106 and 107 of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), 42 U.S.C. §§ 9606, 9607.

B. The United States in its complaint seeks, inter alia: (1) reimbursement of costs incurred by EPA and the Department of Justice for response actions at the Thea Foss and Wheeler Osgood Waterways Problem Areas within the Commencement Bay Nearshore/Tideflats Superfund Site ("CB/NT Site") in Tacoma, Washington, together with accrued interest; and (2) performance of studies and response work by the defendants at the Site consistent with the National Contingency Plan, 40 C.F.R. Part 300 (as amended) ("NCP").

C. In accordance with the NCP and Section 121(f)(1)(F) of CERCLA, 42 U.S.C. § 9621(f)(1)(F), EPA notified the State of Washington (the "State") on May 21, 2001 of negotiations with potentially responsible parties regarding the implementation of the remedial design and remedial action for the CB/NT Site, and EPA has provided the State with an opportunity to participate in such negotiations and be a party to this Consent Decree.

D. In accordance with Section 122(j)(1) of CERCLA, 42 U.S.C. § 9622(j)(1), EPA notified the National Oceanic and Atmospheric Administration of the U.S. Department of Commerce, the Fish and Wildlife Service of the U.S. Department of Interior, the Puyallup Tribe of Indians, and the Muckleshoot Indian Tribe, and the Bureau of Indian Affairs on May 21, 2001 of negotiations with potentially responsible parties regarding the release of hazardous substances that may have resulted in injury to the natural resources under Federal trusteeship and encouraged the trustees to participate in the negotiation of this Consent Decree.

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1 E. The defendants that have entered into this Consent Decree ("Settling Defendants")
2 do not admit any liability to the Plaintiff arising out of the transactions or occurrences alleged
3 in the complaint, nor do they acknowledge that the release or threatened release of hazardous
4 substances at or from the Site constitutes an imminent or substantial endangerment to the
5 public health or welfare or the environment. Settling Defendants also do not admit any
6 liability to the trustees for natural resources who have alleged, or who may allege, that
7 releases of hazardous substances have resulted in injury to natural resources.

8 F. Pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, EPA placed the CB/NT
9 Site on the National Priorities List, set forth at 40 C.F.R. Part 300, Appendix B, by publication
10 in the Federal Register on September 8, 1983, 48 Fed. Reg. 40,658.

11 G. Because of the complexity of the CB/NT Site, Superfund response actions are
12 currently coordinated under seven operable units managed primarily by EPA and the
13 Washington State Department of Ecology ("Ecology"), including (1) Operable Unit 01 -
14 CB/NT Sediments; (2) Operable Unit 02 - ASARCO Tacoma Smelter; (3) Operable Unit 03 -
15 Tacoma Tar Pits; (4) Operable Unit 04 - ASARCO Off-Property; (5) Operable Unit 05 -
16 CB/NT Sources; (6) Operable Unit 06 - ASARCO Sediments; and (7) Operable Unit 07 -
17 ASARCO demolition.

18 H. In response to a release or a substantial threat of a release of hazardous substances
19 at or from the Site, EPA entered into a CERCLA Cooperative Agreement with the Ecology to
20 conduct a Remedial Investigation and Feasibility Study ("RI/FS") for the Site pursuant to 40
21 C.F.R. § 300.430.

22 I. Ecology completed a Remedial Investigation ("RI") Report on contaminated
23 sediments and sources and the results were published in August 1985. The results of the
24 Feasibility Study ("FS") were published in February, 1989.

25 J. Pursuant to Section 117 of CERCLA, 42 U.S.C. § 9617, EPA published notice of

1 the completion of the FS and of the proposed plan for remedial action on February 24, 1989,
2 in a major local newspaper of general circulation. EPA provided an opportunity for written
3 and oral comments from the public on the proposed plan for remedial action. A copy of the
4 transcript of the public meeting is available to the public as part of the administrative record
5 upon which the EPA's Regional Administrator based the selection of the response action.

6 K. The decision by EPA on the remedial action to be implemented at the CB/NT Site
7 is embodied in a final Record of Decision ("ROD"), executed on September 30, 1989, on
8 which the State and Puyallup Tribe of Indians gave their concurrence. The ROD includes
9 EPA's explanation for any significant differences between the final plan and the proposed plan
10 as well as a responsiveness summary to the public comments. Notice of the final plan was
11 published in accordance with Section 117(b) of CERCLA.

12 L. The ROD addresses both sediment remediation (Operable Unit 01) and source
13 control (Operable Unit 05). EPA has entered into Superfund Cooperative Agreements with
14 the State and the Puyallup Tribe of Indians for remedial activities at the Site. Under a
15 Cooperative Agreement with Ecology, effective May 1, 1989, and in the ROD, EPA is
16 designated as the lead agency for remediation of contaminated sediments in the waterways
17 and Commencement Bay, and Ecology is the lead agency for source control of hazardous
18 substances from upland areas (down to the mean high tidal elevation of the waterways).
19 Source control is to be implemented in the upland areas that are contributing contamination to
20 the areas identified in the ROD as requiring sediment remediation ("Problem Areas"). A
21 support agency Cooperative Agreement was entered into with the Puyallup Tribe.

22 M. As described in the RI/FS for the CB/NT Site, there are nine Problem Areas of
23 contaminated sediments and sources of hazardous substances contamination. The ROD
24 addressed eight of the nine Problem Areas, including the Mouth of the Thea Foss and the
25 Head of the Thea Foss Problem Areas, and the Wheeler-Osgood Waterway Problem Area.

26 CONSENT DECREE

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1 The ninth Problem Area, the ASARCO Sediments, is now a separate operable unit of the
2 CB/NT Site and is the subject of a separate ROD. This Consent Decree's work addresses
3 remediation of a portion of the Head of the Thea Foss Waterway Problem Area, which
4 involves performing remedial actions in Remedial Action Areas 23 and 24 as those Remedial
5 Action Areas are described in Appendix D to this Consent Decree .

6 N. On March 23, 1994, the City of Tacoma (the "City") entered into an
7 Administrative Order on Consent ("AOC") with EPA for the preparation of, performance of,
8 and reimbursement of oversight costs for Remedial Design Study for the Thea Foss and
9 Wheeler Osgood Waterways Problem Areas. The objectives of the AOC were: (1) to design
10 the remedial action for the Thea Foss and Wheeler-Osgood Waterways consistent with the
11 ROD, as amended or modified; (2) to perform analyses and studies needed by EPA to approve
12 the design of the remedy for attaining Sediment Quality Objectives identified in the ROD, as
13 amended or modified; (3) to collect and present information needed by federal, state, and
14 tribal trustees to aid the trustees' determination of injury to natural resources and the
15 assessment of natural resource damages within the Waterways, unless a settlement between
16 the parties provides otherwise; and (4) provide for recovery by EPA of its response and
17 oversight costs incurred with respect to the implementation of the AOC.

18 O. On August 1, 1994, the Settling Defendants and others entered into a Funding and
19 Participation Agreement for the Thea Foss and Wheeler Osgood Waterways Remedial Design
20 Study ("FPA") with the City of Tacoma. The objectives of the FPA were (1) to facilitate
21 mutual cooperation between the signatories and the City with regard to the AOC, and (2) to
22 provide funding for performance of the AOC obligations.

23 P. On August 3, 2000, EPA issued an Explanation of Significant Differences (ESD),
24 in compliance with Section 117(c) of CERCLA, that explains differences in the Remedial
25 Action that significantly change, but do not fundamentally alter, the remedy selected in the

1 ROD. The ESD was a comprehensive document addressing cleanup plans for two waterways
2 within the CB/NT Site, selecting disposal sites for all contaminated sediment to be dredged
3 and confined from the Site, as well as providing performance standards and documenting
4 other differences from the ROD. Based on the studies and analysis conducted under the AOC
5 with respect to the Thea Foss and Wheeler Osgood Waterways, the ESD provides details of:
6 the areal extent of sediment contamination in the Thea Foss and Wheeler Osgood Waterways
7 and the volume of sediment that requires remediation; designation of areas that are projected
8 to naturally recover within 10 years of remedial action; EPA's decision to dispose of
9 contaminated sediments in St. Paul Waterway, Blair Slip 1 and an upland regional landfill;
10 performance standards for mitigation for the Remedial Action; and the cost of the Remedial
11 Action at the Thea Foss and Wheeler Osgood Waterways. Notice and public comment were
12 taken on the ESD and notice of the final ESD was published in accordance with Section 117(c)
13 of CERCLA.

14 Q. Settling Defendants along with other settling parties engaged in a multi-year effort,
15 with EPA's support and using the services of a third-party neutral arbitrator ("Arbitrator"), to
16 fairly and equitably allocate amongst themselves liability for cleaning up the Site and thereby
17 to avoid unnecessary transaction costs and litigation which can delay implementation of
18 timely cleanup actions. The integrated settlement involves the City of Tacoma performing
19 remedial action in Remedial Action Areas 1 through 22, the Settling Defendants agreed to
20 perform remedial action in Remedial Action Areas 23 and 24, and the Funding Defendants
21 agreed to fund, in part, the work described in this Consent Decree and the City of Tacoma's
22 Consent Decree. The performance and reimbursement commitments set forth in this Consent
23 Decree reflects in part that comprehensive settlement negotiated by Settling Defendants, the
24 City of Tacoma, and a funding group. A separate RD/RA Consent Decree between the United
25 States and the City of Tacoma and Funding Defendants reflects the remainder of that

1 comprehensive settlement (hereinafter referred to as "City of Tacoma Consent Decree").

2 R. The Settling Defendants have agreed to perform the Work described in this
3 Consent Decree related to implementation of remedial action for Remedial Action Areas 23
4 and 24. Settling Defendants do not currently own, lease, or otherwise control any property
5 within the Site. Based on the information presently available to EPA, EPA believes that the
6 Work will be properly and promptly conducted by the Settling Defendants if conducted in
7 accordance with the requirements of this Consent Decree and its appendices.

8 S. The United States maintains that all responsible parties' liability for response costs
9 incurred at the Thea Foss and Wheeler Osgood Waterways is joint and several. The United
10 State's acceptance of the integrated settlement approach does not reflect the United State's
11 agreement or implied acceptance that liability at this Site is divisible or apportionable. The
12 obligations of settling parties in settlement of their potential liabilities are as set forth in this
13 Decree and the City of Tacoma Consent Decree.

14 T. Solely for the purposes of Section 113(j) of CERCLA, the Remedial Action
15 selected by the ROD and the Work to be performed by the Settling Defendants shall constitute
16 a response action taken or ordered by the President.

17 U. The Parties recognize, and the Court by entering this Consent Decree finds, that
18 this Consent Decree has been negotiated by the Parties in good faith and implementation of
19 this Consent Decree will expedite the cleanup of the Site and will avoid prolonged and
20 complicated litigation between the Parties, and that this Consent Decree is fair, reasonable,
21 and in the public interest.

22 NOW, THEREFORE, it is hereby Ordered, Adjudged, and Decreed:

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II. JURISDICTION

1. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1345, and 42 U.S.C. §§ 9606, 9607, and 9613(b). This Court also has personal jurisdiction over the Settling Defendants. Solely for the purposes of this Consent Decree and the underlying complaint, Settling Defendants waive all objections and defenses that they may have to jurisdiction of the Court or to venue in this District. Settling Defendants shall not challenge the terms of this Consent Decree or this Court's jurisdiction to enter and enforce this Consent Decree.

III. PARTIES BOUND

2. This Consent Decree applies to and is binding upon the United States and upon Settling Defendants and their heirs, successors and assigns. Any change in ownership or corporate status of a Settling Defendant including, but not limited to, any transfer of assets or real or personal property, shall in no way alter such Settling Defendant's responsibilities under this Consent Decree.

3. Settling Defendants shall provide a copy of this Consent Decree to each contractor hired to perform the Work (as defined below) required by this Consent Decree and to each person representing any Settling Defendant with respect to the Site or the Work and shall condition all contracts entered into hereunder upon performance of the Work in conformity with the terms of this Consent Decree. Settling Defendants or their contractors shall provide written notice of the Consent Decree to all subcontractors hired to perform any portion of the Work required by this Consent Decree. Settling Defendants shall nonetheless be responsible for ensuring that their contractors and subcontractors perform the Work contemplated herein in accordance with this Consent Decree. With regard to the activities undertaken pursuant to

1 this Consent Decree, each contractor and subcontractor shall be deemed to be in a contractual
2 relationship with the Settling Defendants within the meaning of Section 107(b)(3) of
3 CERCLA, 42 U.S.C. § 9607(b)(3).

4 IV. DEFINITIONS

5 4. Unless otherwise expressly provided herein, terms used in this Consent Decree
6 which are defined in CERCLA or in regulations promulgated under CERCLA shall have the
7 meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below
8 are used in this Consent Decree or in the appendices attached hereto and incorporated
9 hereunder, the following definitions shall apply:

10 "All Matters Addressed" shall mean for purposes of Paragraph 97 only of this Consent
11 Decree all matters relating to all work on or remediation of the entire Site, including the
12 remediation of all Remedial Action Areas, all Past and Future Response Costs, and all
13 remedial and response actions undertaken with respect to the Site.

14 "CB/NT Site" shall mean the entire Commencement Bay Nearshore/Tideflats
15 Superfund Site and project area, located in Tacoma, Washington, as defined in the Record of
16 Decision, including the Thea Foss and Wheeler Osgood Waterways Problem Areas.

17 "CERCLA" shall mean the Comprehensive Environmental Response, Compensation,
18 and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601 *et seq.*

19 "City of Tacoma" or the "City" shall mean for purposes of this Consent Decree only
20 the City of Tacoma, all departments, divisions, and offices, except Tacoma Public Utilities

21 "City of Tacoma Consent Decree" or "City Consent Decree" shall mean the Remedial
22 Design/Remedial Action Consent Decree entered into by the City of Tacoma and Funding
23 Defendants and the United States simultaneously with this Consent Decree that addresses
24 financing and/or performing work in Remedial Action Areas 1 through 22 within the Site.

25 "Consent Decree" shall mean this Decree and all appendices attached hereto (listed in

1 Section XXIX). In the event of conflict between this Decree and any appendix, this Decree
2 shall control.

3 "Day" shall mean a calendar day unless expressly stated to be a working day.

4 "Working day" shall mean a day other than a Saturday, Sunday, or Federal holiday. In
5 computing any period of time under this Consent Decree, where the last day would fall on a
6 Saturday, Sunday, or Federal holiday, the period shall run until the close of business of the
7 next working day.

8 "Disposal Site" shall mean one or more of the disposal sites identified in the August
9 2000 Explanation of Significant Differences that may be used for disposal of contaminated
10 sediment from the Thea Foss and Wheeler Osgood Waterways Problem Areas. Disposal Site
11 shall also include any related habitat mitigation areas and adjacent upland property within the
12 CB/NT Site necessary for construction of the Disposal Site.

13 "Effective Date" shall be the effective date of this Consent Decree as provided in
14 Section XXVII.

15 "EPA" shall mean the United States Environmental Protection Agency and any
16 successor departments or agencies of the United States.

17 "Ecology" shall mean the Washington State Department of Ecology and any successor
18 departments or agencies of the State.

19 "Future Oversight Costs" shall mean that portion of Future Response Costs that EPA
20 incurs in monitoring and supervising Settling Defendant's performance of the Work to
21 determine whether such performance is consistent with the requirements of this Consent
22 Decree, including costs incurred in reviewing plans, reports and other documents submitted
23 pursuant to this Consent Decree, as well as, costs incurred in overseeing implementation of
24 the Work; however, Future Oversight Costs do not include, *inter alia*: the costs incurred by
25 the United States pursuant to Sections VII (Remedy Review), IX (Access and Institutional

Controls), XV (Emergency Response), and Paragraph 88 of Section XXI (Work Takeover), or the costs incurred by the United States in enforcing the terms of this Consent Decree, including all costs incurred in connection with Dispute Resolution pursuant to Section XIX (Dispute Resolution) and all litigation costs.

"Future Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurs in reviewing or developing plans, reports and other items pursuant to this Consent Decree, verifying the Work, or otherwise implementing, overseeing, or enforcing this Consent Decree, including, but not limited to, payroll costs, contractor costs, travel costs, laboratory costs, the costs incurred pursuant to Sections VII, IX (including, but not limited to, the cost of attorney time and any monies paid to secure access and/or to secure or implement institutional controls including, but not limited to, the amount of just compensation), Section XV, and Paragraph 88 of Section XXI. Future Response Costs shall also include all Interim Response Costs. Future Response Costs shall also include any CB/NT area-wide costs that may be attributable to the Thea Foss and Wheeler Osgood Waterway Problem Areas. Future Response Costs shall not include costs incurred which are solely attributable to upland hazardous waste cleanups. Future Response Costs shall not include costs incurred solely as a result of any future release or potential threat of a release of a hazardous substance, pollutant, or contaminant at or into the Site by any party other than the Settling Defendants.

"Funding Defendants" shall mean the Settling Defendants expressly listed as Funding Defendants in Appendix E to the City of Tacoma Consent Decree, and who have agreed to fund, in part, the work described in this Consent Decree and the City of Tacoma Consent Decree

"Interim Response Costs" shall mean all costs, including direct and indirect costs, (a) paid by the United States in connection with the Site between May 23, 2001 and the

1 Effective Date, or (b) incurred prior to the Effective Date but paid after that date.

2 "Interest," shall mean interest at the rate specified for interest on investments of the
3 EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually
4 on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of
5 interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject
6 to change on October 1 of each year.

7 "MTCA" shall mean the Model Toxics Control Act, as amended, Ch. 70.105D,
8 Revised Code of Washington.

9 "National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous
10 Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42
11 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

12 "Operation and Maintenance" or "O & M" shall mean all activities required to
13 maintain the effectiveness of the Remedial Action as required under the Operation
14 Maintenance and Monitoring Plan (OM&MP) approved or developed by EPA pursuant to this
15 Consent Decree and the Statement of Work (SOW).

16 "Paragraph" shall mean a portion of this Consent Decree identified by an arabic
17 numeral or an upper case letter.

18 "Parties" shall mean the United States and the Settling Defendants.

19 "Past Response Costs" shall mean all costs, including, but not limited to, direct and
20 indirect costs, that the United States paid at or in connection with the Site through May 22,
21 2001 plus Interest on all such costs which has accrued pursuant to 42 U.S.C. § 9607(a)
22 through such date. Past Response Costs shall also include direct and indirect costs that the
23 United States incurred related to the Remedial Design AOC and billed to Account 10R9 but
24 that were not reimbursed by the City in accordance with its terms.

25 "Performance Standards" shall mean the cleanup objectives, standards and other

1 measures of achievement of the goals of the Remedial Action, set forth in Sections 7, 8 and 10
2 of the ROD, the 1997 ESD, the August 2000 ESD, and Section III. of the SOW, which
3 includes, but is not limited to, the Sediment Quality Objectives ("SQOs") and the use of
4 biological monitoring in place of chemical concentration monitoring as approved in the final
5 Operation, Maintenance, and Monitoring Plan under this Consent Decree.

6 "Plaintiff" shall mean the United States.

7 "RCRA" shall mean the Solid Waste Disposal Act, as amended, 42 U.S.C. §§ 6901
8 *et seq.* (also known as the Resource Conservation and Recovery Act).

9 "Record of Decision" or "ROD" shall mean the EPA Record of Decision relating to
10 the Site signed on September 30, 1989, by the Regional Administrator, EPA Region 10, all
11 attachments thereto and all significant differences thereto documented in the ESD issued on
12 July 28, 1997 and the ESD issued on August 3, 2000. The ROD and the 1997 and 2000 ESDs
13 are attached as Appendix A. The 1997 ESD or the 2000 ESD may be referred to or discussed
14 individually or separately from the 1989 ROD in this Consent Decree where appropriate.

15 "Remedial Action" shall mean all activities, except for Operation and Maintenance, to
16 be undertaken by Settling Defendants and the City of Tacoma to implement the ROD in the
17 Thea Foss and Wheeler Osgood Waterways under this Consent Decree and a separate Consent
18 Decree with the City of Tacoma.

19 "Remedial Action Areas 23 and 24" or "RA 23 and 24" shall mean the remedial action
20 areas at which Settling Defendants shall finance and perform the remedial design, the
21 remedial action, and Operation and Maintenance in accordance with the SOW and the final
22 Remedial Design and Remedial Action Work Plans and other plans approved by EPA.
23 Remedial Action Areas 23 and 24 are depicted in Appendix D to this Consent Decree and will
24 be more particularly described in the final plans and specifications contained in the Final
25 Remedial Design.

1 "Remedial Action Work Plan" shall mean the document developed pursuant to
2 Paragraph 12 of this Consent Decree and the SOW and approved by EPA, and any
3 amendments thereto.

4 "Remedial Design" shall mean those activities to be undertaken by the Settling
5 Defendants to develop the final plans and specifications for the Remedial Action in Remedial
6 Action Areas 23 and 24 pursuant to the Remedial Design Work Plan.

7 "Remedial Design Work Plan" shall mean the document developed pursuant to
8 Paragraph 11 of this Consent Decree and the SOW and approved by EPA, and any
9 amendments thereto.

10 "Response Costs" shall mean all costs of "response" as that term is defined by Section
11 101(25) of CERCLA, 42 U.S.C. §9601(25), and incurred in connection to the Thea Foss and
12 Wheeler Osgood Waterway Problem Areas.

13 "Section" shall mean a portion of this Consent Decree identified by a roman numeral.

14 "Settling Defendants" shall mean Advance Ross Sub Company, PacifiCorp, and Puget
15 Sound Energy.

16 "Site" shall mean the Thea Foss Waterway Problem Areas and Wheeler Osgood
17 Waterway Problem Area, collectively, all of which were identified in the Commencement Bay
18 Nearshore/Tideflats Superfund Record of Decision, and which encompass approximately 118
19 acres of contaminated intertidal and subtidal sediment and shoreline to the top of the bank, in
20 the two western-most Waterways in Commencement Bay. Site shall also include any property
21 within or adjacent to the Site necessary for the implementation of the remedial action, and
22 property within the CB/NT Site required for disposal of contaminated sediment and habitat
23 mitigation necessary to implement the ROD. The Thea Foss Waterway is bordered by Dock
24 Street and Burlington Northern Railroad to the south and west and generally D Street to the
25 east in Tacoma, Pierce County, Washington. The Wheeler Osgood Waterway is bordered by

1 11th Street to the north, E. 15th Street to the south, and St. Paul Avenue South to the east in
2 Tacoma, Pierce County, Washington. This term does not include property addressed as part
3 of Operable Unit 5 of the CB/NT Site, which encompasses upland properties adjacent to the
4 Thea Foss or Wheeler Osgood Waterways that are past, present, or future sources of
5 hazardous substances to the Site. The Site is depicted generally on the map attached as
6 Appendix C.

7 "State" shall mean the State of Washington.

8 "Statement of Work" or "SOW" shall mean the statement of work for implementation
9 by Settling Defendants, of the Remedial Design, Remedial Action, and Operation and
10 Maintenance at Remedial Action Areas 23 and 24, as set forth in Appendix B to this Consent
11 Decree and any modifications made in accordance with this Consent Decree.

12 "Supervising Contractor" shall mean the principal contractor retained by the Settling
13 Defendants to supervise and direct the implementation of the Work under this Consent
14 Decree.

15 "United States" shall mean the United States of America.

16 "Waste Material" shall mean (1) any "hazardous substance" under Section 101(14) of
17 CERCLA, 42 U.S.C. § 9601(14); (2) any "pollutant or contaminant" under Section 101(33),
18 42 U.S.C. § 9601(33); (3) any "solid waste" under Section 1004(27) of RCRA, 42 U.S.C.
19 § 6903(27); and (4) any "hazardous waste" under the Model Toxics Control Act, Washington
20 RCW 70.105D.

21 "Work" shall mean all activities Settling Defendants are required to perform under this
22 Consent Decree and pursuant to the Statement of Work, except those required by Section
23 XXVIII (Retention of Records).

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1 V. GENERAL PROVISIONS

2 5. Objectives of the Parties. The objectives of the Parties in entering into this
3 Consent Decree are to protect public health or welfare or the environment at the Site by the
4 design and implementation of response actions at the Site by the Settling Defendants, to
5 reimburse response costs of the Plaintiff consistent with the terms of this Consent Decree, and
6 to resolve the claims of the Plaintiff against Settling Defendants and the claims of Settling
7 Defendants which have been or could have been asserted against the United States with regard
8 to this Site as provided in this Consent Decree.

9 6. Commitments by Settling Defendants.

10 a. Settling Defendants shall finance and perform the Work in accordance with
11 this Consent Decree, the ROD, the SOW, and all work plans and other plans, standards,
12 specifications, and schedules set forth herein or developed by Settling Defendants and
13 approved by EPA pursuant to this Consent Decree. Settling Defendants shall also reimburse
14 the United States for Future Response Costs as provided in this Consent Decree.

15 b. The obligations of Settling Defendants to finance and perform the Work and
16 to pay amounts owed the United States under this Consent Decree are joint and several. In the
17 event of the insolvency or other failure of any one or more Settling Defendants to implement
18 the requirements of this Consent Decree, the remaining Settling Defendants shall complete all
19 such requirements.

20 7. Compliance With Applicable Law. All activities undertaken by Settling
21 Defendants pursuant to this Consent Decree shall be performed in accordance with the
22 requirements of all applicable federal and state laws and regulations. Settling Defendants
23 must also comply with all applicable or relevant and appropriate requirements of all Federal
24 and state environmental laws as set forth in the ROD and the SOW. The activities conducted
25 pursuant to this Consent Decree, if approved by EPA, shall be considered to be consistent

1 with the NCP.

2 8. Permits.

3 a. As provided in Section 121(e) of CERCLA and Section 300.400(e) of the
4 NCP, no permit shall be required for any portion of the Work conducted entirely on-site (i.e.,
5 within the areal extent of contamination or in very close proximity to the contamination and
6 necessary for implementation of the Work). Where any portion of the Work that is not on-site
7 requires a federal or state permit or approval, Settling Defendants shall submit timely and
8 complete applications and take all other actions necessary to obtain all such permits or
9 approvals.

10 b. The Settling Defendants may seek relief under the provisions of Section
11 XVIII (Force Majeure) of this Consent Decree for any delay in the performance of the Work
12 resulting from a failure to obtain, or a delay in obtaining, any permit required for the Work.

13 c. This Consent Decree is not, and shall not be construed to be, a permit issued
14 pursuant to any federal or state statute or regulation.

15 9. Notice to Successors-in-Title.

16 a. If prior to Certification of Completion of the Work provided in Section XIV
17 of this Consent Decree, any of the Settling Defendants purchase, or lease for more than one
18 (1) year property located along the shoreline of the Thea Foss Waterway or Wheeler Osgood
19 Waterway within the Site, within fifteen (15) days of the purchase or lease for more than one
20 (1) year, the owner Settling Defendant shall submit to EPA for review and approval a notice
21 to be filed with the Recorder's Office, Pierce County, State of Washington, which shall
22 provide notice to all successors-in-title that the property is part of the Site, that EPA selected a
23 remedy for the Site on September 30, 1989, and that potentially responsible parties have
24 entered into a Consent Decree requiring implementation of the remedy. Such notice shall
25 identify the United States District Court in which the Consent Decree was filed, the name and

1 civil action number of this case, and the date the Consent Decree was entered by the Court.

2 The owner Settling Defendant shall record the notice within 10 days of EPA's approval of the
3 notice. The owner Settling Defendant shall provide EPA with a certified copy of the recorded
4 notice within ten (10) days of recording such notice.

5 b. At least thirty (30) days prior to the conveyance of any interest in property
6 located within the Site including, but not limited to, fee interests, leasehold interests, and
7 mortgage interests, the owner Settling Defendant conveying the interest shall give the grantee
8 written notice of (i) this Consent Decree, (ii) any instrument by which an interest in real
9 property has been conveyed that confers a right of access to the Site, if any, and (iii) any
10 recorded restrictive covenant authorized by Wash. RCW 70.105D.030(1)(f) and (g), and more
11 specifically described in Washington Administrative Code (WAC) 173-340-440 that places
12 use restrictions on and concerning the real property pursuant to Section IX (Access and
13 Institutional Controls). At least thirty (30) days prior to such conveyance, the owner Settling
14 Defendant conveying the interest shall also give written notice to EPA of the proposed
15 conveyance, including the name and address of the grantee, and the date on which notice of
16 the Consent Decree, access easements, and/or restrictive easements was given to the grantee.

17 c. In the event of any such conveyance, the owner Settling Defendant's
18 obligations under this Consent Decree, including, but not limited to, its obligation to provide
19 or secure access and institutional controls, as well as to abide by such institutional controls,
20 pursuant to Section IX (Access and Institutional Controls) of this Consent Decree, shall
21 continue to be met by the owner Settling Defendant. In no event shall the conveyance release
22 or otherwise affect the liability of the Owner Settling Defendant to comply with all provisions
23 of this Consent Decree, absent the prior written consent of EPA. If the United States
24 approves, the grantee may perform some or all of the Work under this Consent Decree.

1 VI. PERFORMANCE OF THE WORK BY SETTLING DEFENDANTS

2 10. Selection of Supervising Contractor.

3 a. All aspects of the Work to be performed by Settling Defendants pursuant to
4 Sections VI (Performance of the Work by Settling Defendants), VII (Remedy Review), VIII
5 (Quality Assurance, Sampling and Data Analysis), and XV (Emergency Response) of this
6 Consent Decree shall be under the direction and supervision of the Supervising Contractor,
7 the selection of which shall be subject to disapproval by EPA. Within ten (10) days after the
8 lodging of this Consent Decree, Settling Defendants shall notify EPA in writing of the name,
9 title, and qualifications of any contractor proposed to be the Supervising Contractor. With
10 respect to any contractor proposed to be Supervising Contractor, Settling Defendants shall
11 demonstrate that the proposed contractor has a quality system that complies with ANSI/SQC
12 E4-1994, "Specifications and Guidelines for Quality Systems for Environmental Data
13 Collection and Environmental Technology Programs," (American National Standard, January
14 5, 1995), by submitting a copy of the proposed contractor's Quality Management Plan (QMP).
15 The QMP should be prepared in accordance with "EPA Requirements for Quality
16 Management Plans (QA/R-2)" (EPA/240/B-01/002, March 2001) or equivalent
17 documentation as determined by EPA. EPA will issue a notice of disapproval or an
18 authorization to proceed. If at any time thereafter, Settling Defendants propose to change a
19 Supervising Contractor, Settling Defendants shall give such notice to EPA and must obtain an
20 authorization to proceed from EPA before the new Supervising Contractor performs, directs,
21 or supervises any Work under this Consent Decree.

22 b. If EPA disapproves a proposed Supervising Contractor, EPA will notify
23 Settling Defendants in writing. Settling Defendants shall submit to EPA a list of contractors,
24 including the qualifications of each contractor, that would be acceptable to them within thirty
25 (30) days of receipt of EPA's disapproval of the contractor previously proposed. EPA will

1 provide written notice of the names of any contractor(s) that it disapproves and an
2 authorization to proceed with respect to any of the other contractors. Settling Defendants may
3 select any contractor from that list that is not disapproved and shall notify EPA of the name of
4 the contractor selected within twenty-one (21) days of EPA's authorization to proceed.

5 c. If EPA fails to provide written notice of its authorization to proceed or
6 disapproval as provided in this Paragraph and this failure prevents the Settling Defendants
7 from meeting one or more deadlines in a plan approved by the EPA pursuant to this Consent
8 Decree, Settling Defendants may seek relief under the provisions of Section XVIII (Force
9 Majeure) hereof.

10 11. Remedial Design.

11 a. Within thirty (30) days after EPA's issuance of an authorization to proceed
12 pursuant to Paragraph 10, Settling Defendants shall submit to EPA a work plan for the design
13 of the Remedial Action at Remedial Action Areas 23 and 24 ("Remedial Design Work Plan"
14 or "RD Work Plan"). The Remedial Design Work Plan shall provide for design of the remedy
15 in Remedial Action Areas 23 and 24, as set forth in the ROD, in accordance with the SOW
16 and for achievement of the Performance Standards and other requirements set forth in the
17 ROD, this Consent Decree and/or the SOW. Upon its approval by EPA, the Remedial Design
18 Work Plan shall be incorporated into and become enforceable under this Consent Decree.
19 Within thirty (30) days after EPA's issuance of an authorization to proceed, the Settling
20 Defendants shall submit to EPA a Health and Safety Plan (HSP) for field design activities
21 which conforms to the applicable Occupational Safety and Health Administration and EPA
22 requirements including, but not limited to, 29 C.F.R. § 1910.120.

23 b. The Remedial Design Work Plan shall include plans and schedules for
24 implementation of all remedial design tasks identified in the SOW, including, but not limited
25 to, plans and schedules for the completion of: (1) design sampling and analysis plan for

1 additional data needs (including, but not limited to, a Field Sampling Plan and Remedial
2 Design Quality Assurance Project Plan (RD QAPP) in accordance with Section VIII (Quality
3 Assurance, Sampling and Data Analysis)); (2) a Construction Quality Assurance Plan
4 (CQAP); (3) a preliminary thirty percent (30%) design submittal; (4) any intermediate design
5 submittal(s) pursuant to paragraph e. below; (5) a pre-final (90%), final design (100%)
6 submittal; and other reports listed in the SOW that are part of the pre-final and final design
7 submittals.

8 c. Upon approval of the Remedial Design Work Plan by EPA and submittal of
9 the Health and Safety Plan for all field activities to EPA, Settling Defendants shall implement
10 the Remedial Design Work Plan. The Settling Defendants shall submit to EPA all plans,
11 submittals and other deliverables required under the approved Remedial Design Work Plan in
12 accordance with the approved schedule for review and approval pursuant to Section XI (EPA
13 Approval of Plans and Other Submissions). Unless otherwise directed by EPA, Settling
14 Defendants shall not commence further Remedial Design activities at the Site prior to
15 approval of the Remedial Design Work Plan.

16 d. The preliminary design submittal shall include, at a minimum, the following:
17 (1) results of additional field sampling and pre-design work; (2) preliminary plans, drawings
18 and sketches and required specifications in outline form representing thirty percent (30%)
19 design; (3); a basis for design report, including but not limited to project delivery strategy,
20 preliminary construction schedule, and specific design elements specified in the SOW; (4)
21 description or outline of proposed cleanup verification methods; and, if necessary, (5) a draft
22 Compensatory Mitigation Plan.

23 e. Any intermediate design submittal, if required by EPA or if proposed by the
24 Settling Defendants, shall be a continuation and expansion of the preliminary design. Any
25 value engineering proposals must be identified no later than by 60% design and evaluated as

1 an intermediate design submittal. The scope of any intermediate remedial design submittals
2 shall be approved by EPA prior to submittal.

3 f. The pre-final/final design submittal shall include, at a minimum, the
4 following: (1) 90%/100% plans and specifications; (2) draft Operation, Maintenance and
5 Monitoring Plan; (3) draft Construction Quality Assurance Project Plan (CQAP); (4) draft
6 Field Sampling Plan, QAPP and HSP (directed at measuring progress towards meeting
7 Performance Standards for remedial action construction); and (5) draft Water Quality
8 Monitoring Plan; (6) Capital and O&M Cost Estimate, (7) Final Compensatory Mitigation
9 Plan, if necessary, and (8) final project schedule.. The CQAP, which shall detail the approach
10 to quality assurance during construction activities at the Site, shall specify a quality assurance
11 official ("QA Official"), independent of the Supervising Contractor, to conduct a quality
12 assurance program during the construction phase of the project.

13 12. Remedial Action.

14 a. Within forty-five (45) days after the approval of the final design submittal,
15 Settling Defendants shall submit to EPA and the State, a work plan for the performance of the
16 Remedial Action in Remedial Action Areas 23 and 24 ("Remedial Action Work Plan"). The
17 Remedial Action Work Plan shall provide for construction and implementation of the remedy
18 in Remedial Action Areas 23 and 24, as set forth in the ROD and achievement of the
19 Performance Standards, in accordance with this Consent Decree, the ROD, the SOW, and the
20 design plans and specifications developed in accordance with the Remedial Design Work Plan
21 and approved by EPA. Upon its approval by EPA, the Remedial Action Work Plan shall be
22 incorporated into and become enforceable under this Consent Decree. At the same time as
23 they submit the Remedial Action Work Plan, Settling Defendants shall submit to EPA a final
24 Health and Safety Plan for field activities required by the Remedial Action Work Plan which
25 conforms to the applicable Occupational Safety and Health Administration and EPA

requirements including, but not limited to, 29 C.F.R. § 1910.120.

b. The Remedial Action Work Plan shall include, but is not limited to, the following: (1) the schedule for completion of the Remedial Action in Remedial Action Areas 23 and 24; (2) method for selection of the contractor; (3) schedule for developing and submitting other required Remedial Action plans; (4) final Construction Quality Assurance Plan; (5) a final water quality monitoring plan; (6) methods for satisfying permitting requirements; (7) final Operation, Monitoring and Maintenance Plan; (8) tentative formulation of the Remedial Action team; and (9) construction quality control plan (by construction contractor). The Remedial Action Work Plan also shall include the methodology for implementation of the Construction Quality Assurance Plan and a schedule for implementation of all Remedial Action tasks identified in the final design submittal and shall identify the initial formulation of the Settling Defendants' Remedial Action Project Team (including, but not limited to, the Supervising Contractor).

c. Upon approval of the Remedial Action Work Plan by EPA, Settling Defendants shall implement the activities required under the Remedial Action Work Plan. The Settling Defendants shall submit to EPA all plans, submittals, or other deliverables required under the approved Remedial Action Work Plan in accordance with the approved schedule for review and approval pursuant to Section XI (EPA Approval of Plans and Other Submissions). Unless otherwise directed by EPA, Settling Defendants shall not commence physical Remedial Action activities at the Site prior to approval of the Remedial Action Work Plan.

13. The Settling Defendants shall continue to perform the Work, including implement the OM&MP, until the Performance Standards are achieved and for so long thereafter as is otherwise required under this Consent Decree.

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1 14. Modification of the SOW or Related Work Plans.

2 a. If EPA determines that modification to the work specified in the SOW and/or
3 in work plans developed pursuant to the SOW is necessary to achieve and maintain the
4 Performance Standards or to carry out and maintain the effectiveness of the remedy set forth
5 in the ROD, EPA may require that such modification be incorporated in the SOW and/or such
6 work plans. Provided, however, that a modification may only be required pursuant to this
7 Paragraph to the extent that it is consistent with the scope of the remedy selected in the ROD.

8 b. For the purposes of Paragraphs 14, 51, and 52 only, the "scope of the remedy
9 selected in the ROD" shall mean the following:

10 i) remediation of contaminated marine sediment in the Thea Foss
11 Waterway Problem Areas and the Wheeler Osgood Waterway Problem Area by implementing
12 the four key elements of the selected remedy described in Section 10 of the September 30,
13 1989 ROD, including achieving the cleanup objectives and performance standards provided in
14 Section 10.1 of the ROD, as further defined and described in Sections 7 and 8 of the 1989
15 ROD, the July 28, 1997 ESD, and Sections III, IV, V.A. and VI of the August 3, 2000 ESD.

16 c. If Settling Defendants object to any modification determined by EPA to be
17 necessary pursuant to this Paragraph, they may seek dispute resolution pursuant to Section
18 XIX (Dispute Resolution), Paragraph 68 (record review). The SOW and/or related work plans
19 shall be modified in accordance with final resolution of the dispute.

20 d. Settling Defendants shall implement any work required by any modifications
21 incorporated in the SOW and/or in work plans developed pursuant to the SOW in accordance
22 with this Paragraph.

23 e. Nothing in this Paragraph shall be construed to limit EPA's authority to
24 require performance of further response actions as otherwise provided in this Consent Decree.

25 15. Settling Defendants acknowledge and agree that nothing in this Consent Decree,

the SOW, or the Remedial Design or Remedial Action Work Plans constitutes a warranty or representation of any kind by Plaintiff that compliance with the work requirements set forth in the SOW and the Work Plans will achieve the Performance Standards.

16. Off-Site Shipment.

a. Settling Defendants shall, prior to any off-Site shipment of Waste Material from the Site to an out-of-state waste management facility, provide written notification to the appropriate state environmental official in the receiving facility's state and to the EPA Project Coordinator of such shipment of Waste Material. However, this notification requirement shall not apply to any off-Site shipments when the total volume of all such shipments will not exceed ten (10) cubic yards.

i) The Settling Defendants shall include in the written notification the following information, where available: (1) the name and location of the facility to which the Waste Material are to be shipped; (2) the type and quantity of the Waste Material to be shipped; (3) the expected schedule for the shipment of the Waste Material; and (4) the method of transportation. The Settling Defendants shall notify the state in which the planned receiving facility is located of major changes in the shipment plan, such as a decision to ship the Waste Material to another facility within the same state, or to a facility in another state.

ii) The identity of the receiving facility and state will be determined by the Settling Defendants following the award of the contract for Remedial Action construction. The Settling Defendants shall provide the information required by Paragraph 16.a.i) as soon as practicable after the award of the contract and before the Waste Material is actually shipped.

b. Before shipping hazardous substances, pollutants, or contaminants from the Site to an off-site location, Settling Defendants shall obtain EPA's certification that the proposed receiving facility is operating in compliance with the requirements of CERCLA Section 121(d)(3) and 40. C.F.R. 300.440. Settling Defendants shall only send hazardous

substances, pollutant, or contaminants from the Site to an off-site facility that complies with the requirements of the statutory provision and regulations cited in the preceding sentence.

VII. REMEDY REVIEW

17. Periodic Review. Settling Defendants shall conduct any studies and investigations as requested by EPA, in order to permit EPA to conduct reviews of whether the Remedial Action is protective of human health and the environment at least every five years as required by Section 121(c) of CERCLA and any applicable regulations.

18. EPA Selection of Further Response Actions. If EPA determines, at any time, that the Remedial Action is not protective of human health and the environment, EPA may select further response actions for the Site in accordance with the requirements of CERCLA and the NCP.

19. Opportunity To Comment. Settling Defendants and, if required by Sections 113(k)(2) or 117 of CERCLA, the public, will be provided with an opportunity to comment on any further response actions proposed by EPA as a result of the review conducted pursuant to Section 121(c) of CERCLA and to submit written comments for the record during the comment period.

20. Settling Defendants' Obligation To Perform Further Response Actions. If EPA selects further response actions for the Site, the Settling Defendants shall undertake such further response actions to the extent that the reopener conditions in Paragraph 84 or Paragraph 85 (United States' reservations of liability based on unknown conditions or new information) are satisfied. Settling Defendants may invoke the procedures set forth in Section XIX (Dispute Resolution) to dispute (1) EPA's determination that the reopener conditions of Paragraph 84 or Paragraph 85 of Section XXI (Covenants Not To Sue by Plaintiff) are satisfied, (2) EPA's determination that the Remedial Action is not protective of human health and the environment, or (3) EPA's selection of the further response actions. Disputes

1 pertaining to the whether the Remedial Action is protective or to EPA's selection of further
2 response actions shall be resolved pursuant to Paragraph 68 (record review).

3 21. Submissions of Plans. If Settling Defendants are required to perform the further
4 response actions pursuant to Paragraph 20, they shall submit a plan for such work to EPA for
5 approval in accordance with the procedures set forth in Section VI (Performance of the Work
6 by Settling Defendants) and shall implement the plan approved by EPA in accordance with
7 the provisions of this Decree.

8 VIII. QUALITY ASSURANCE, SAMPLING, AND DATA ANALYSIS

9 22. Settling Defendants shall use quality assurance, quality control, and chain of
10 custody procedures for all treatability, design, compliance and monitoring samples in
11 accordance with "EPA Requirements for Quality Assurance Project Plans (QA/R5)"
12 (EPA/240/B-01/003, March 2001), "Guidance for Quality Assurance Project Plans (QA/G-5)"
13 (EPA/600/R-98/018, February 1998), and subsequent amendments to such guidelines upon
14 notification by EPA to Settling Defendants of such amendment. Amended guidelines shall
15 apply only to procedures conducted after such notification. Prior to the commencement of any
16 monitoring project under this Consent Decree, Settling Defendants shall submit to EPA for
17 approval, after a reasonable opportunity for review and comment by the State, a Quality
18 Assurance Project Plan ("QAPP") that is consistent with the SOW, the NCP and applicable
19 guidance documents. If relevant to the proceeding, the Parties agree that validated sampling
20 data generated in accordance with the QAPP(s) and reviewed and approved by EPA shall be
21 admissible as evidence, without objection, in any proceeding under this Decree. Settling
22 Defendants shall ensure that EPA and State personnel and their authorized representatives are
23 allowed access at reasonable times to all laboratories utilized by Settling Defendants in
24 implementing this Consent Decree. In addition, Settling Defendants shall ensure that such
25 laboratories shall analyze all samples submitted by EPA pursuant to the QAPP for quality

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1 assurance monitoring. Settling Defendants shall ensure that the laboratories they utilize for
2 the analysis of samples taken pursuant to this Decree perform all analyses according to
3 accepted EPA methods. Accepted EPA methods consist of those methods which are
4 documented in the "Contract Lab Program (CLP) Statement of Work for Inorganic Analysis"
5 and the "Contract Lab Program Statement of Work for Organic Analysis," dated February
6 1988, and any amendments made thereto during the course of the implementation of this
7 Decree; however, upon approval by EPA, the Settling Defendants may use other analytical
8 methods which are as stringent as or more stringent than the CLP-approved methods. Settling
9 Defendants shall ensure that all laboratories they use for analysis of samples taken pursuant to
10 this Consent Decree participate in an EPA or EPA-equivalent QA/QC program. Settling
11 Defendants shall only use laboratories that have a documented Quality System which
12 complies with ANSI/ASQC E4-1994, "Specifications and Guidelines for Quality Systems for
13 Environmental Data Collection and Environmental Technology Programs," (American
14 National Standard, January 5, 1995), and "EPA Requirements for Quality Management Plans
15 (QA/R-2)," (EPA/240/B-01/002, March 2001) or equivalent documentation as determined by
16 EPA. EPA may consider laboratories accredited under the National Environmental
17 Laboratory Accreditation Program (NELAP) as meeting the Quality System requirements.
18 Settling Defendants shall ensure that all field methodologies utilized in collecting samples for
19 subsequent analysis pursuant to this Decree will be conducted in accordance with the
20 procedures set forth in the QAPP approved by EPA.

21 23. Upon request, the Settling Defendants shall allow split or duplicate samples to be
22 taken by EPA or its authorized representatives. Settling Defendants shall notify EPA not less
23 than twenty-eight (28) days in advance of any sample collection activity unless shorter notice
24 is agreed to by EPA. In addition, EPA shall have the right to take any additional samples that
25 EPA deems necessary. Upon request, EPA shall allow the Settling Defendants to take split or

1 duplicate samples of any samples it takes as part of the Plaintiff's oversight of the Settling
2 Defendants' implementation of the Work.

3 24. Settling Defendants shall submit to EPA four (4) copies of the results of all
4 sampling and/or tests or other data obtained or generated by or on behalf of Settling
5 Defendants with respect to the Site and/or the implementation of this Consent Decree unless
6 EPA agrees otherwise. Settling Defendants are not required to submit to EPA sampling
7 and/or tests or other data generated by the City and obtained by the Settling Defendants if the
8 City has already submitted such sampling, tests, or other data to EPA.

9 25. Notwithstanding any provision of this Consent Decree, the United States hereby
10 retains all of their information gathering and inspection authorities and rights, including
11 enforcement actions related thereto, under CERCLA, RCRA and any other applicable statutes
12 or regulations.

13 IX. ACCESS AND INSTITUTIONAL CONTROLS

14 26. If the Site, or any other property where access and/or land/water use restrictions
15 are needed to implement this Consent Decree or Remedial Action performed by others at the
16 Site, is purchased or leased for longer than one (1) year by any Settling Defendant prior to
17 Certification of Completion of Work provided in Section XIV of this Consent Decree, such
18 Settling Defendants shall:

19 a. commencing on the date of purchase or lease, provide the United States and
20 their representatives, including EPA and its contractors, with access at all reasonable times to
21 the Site, or such other property, for the purpose of conducting any activity related Remedial
22 Action at the Site including, but not limited to, the following activities:

- 23 i) Monitoring the Work;
24 ii) Verifying any data or information submitted to the United States or the
25 State;

- 1 iii) Conducting investigations relating to contamination at or near the Site;
- 2 iv) Obtaining samples;
- 3 v) Assessing the need for, planning, or implementing additional response
- 4 actions at or near the Site;
- 5 vi) Implementing the Work pursuant to the conditions set forth in
- 6 Paragraph 87 of this Consent Decree or implementing work required by the City of Tacoma's
- 7 Consent Decree;
- 8 vii) Inspecting and copying records, operating logs, contracts, or other
- 9 documents maintained or generated by Settling Defendants or their agents, consistent with
- 10 Section XXIV (Access to Information);
- 11 viii) Assessing Settling Defendants' compliance with this Consent Decree;
- 12 ix) Determining whether the Site or other property is being used in a
- 13 manner that is prohibited or restricted, or that may need to be prohibited or restricted, by or
- 14 pursuant to this Consent Decree; and
- 15 x) Assessing the Utilities' or the City of Tacoma's implementation of
- 16 quality assurance and quality control practices as defined in the approved Quality Assurance
- 17 Project Plans;
- 18 b. commencing on the date of purchase or lease, refrain from using the Site, or
- 19 such other property, in any manner that would interfere with or adversely affect the integrity,
- 20 or protectiveness of the remedial measures to be implemented pursuant to this Consent
- 21 Decree, or the City of Tacoma's Consent Decree so as to achieve the following institutional
- 22 control objectives:
- 23 i) reduce potential exposure of marine organisms to contaminated
- 24 sediments disposed of and confined in aquatic disposal sites or confined by capping;
- 25 ii) reduce potential exposure of marine organisms to contaminated

1 sediments left in place in the Thea Foss Waterway and Wheeler Osgood Waterway; and

2 c. at EPA's request, execute and record in the Auditor's Office of Pierce
3 County, State of Washington, a restrictive covenant authorized by MTCA and that complies
4 with the form and content contained in WAC 173-340-440 for implementation of institutional
5 controls that are required to assure continued protection of human health and the environment
6 or the integrity of the remedial action.

7 27. If the Site, or any other property where access and/or land/water use restrictions
8 are needed to implement this Consent Decree, is owned or controlled by persons other than
9 any of the Settling Defendants, Settling Defendants shall use best efforts to secure from such
10 persons:

11 a. an agreement to provide access thereto for Settling Defendants, as well as for
12 the United States on behalf of EPA, and the State, as well as their representatives (including
13 contractors), for the purpose of conducting any activity related to this Consent Decree
14 including, but not limited to, those activities listed in Paragraph 26.a. of this Consent Decree;

15 b. an agreement, enforceable by the Settling Defendants and the United States,
16 to refrain from using the Site, or such other property, in any manner that would interfere with
17 or adversely affect the implementation, integrity, or protectiveness of the remedial measures to
18 be performed pursuant to this Consent Decree; and

19 c. at EPA's request, execute and record in the Auditor's Office of Pierce
20 County, State of Washington, a restrictive covenant authorized by MTCA and that complies
21 with the form and content contained in WAC 173-340-440 for implementation of institutional
22 controls that are required to assure continued protection of human health and the environment
23 or the integrity of the remedial action.

24 28. For purposes of Paragraph 27 of this Consent Decree, "best efforts" includes the
25 payment of fair market rate sums of money reflecting actual losses of revenue or actual

1 property use or disruption in consideration of access, access easements, land/water use
2 restrictions, and/or restrictive covenants. If any access or land/water use restriction
3 agreements required by Paragraphs 27.a. or 27.b. of this Consent Decree are not obtained
4 within forty-five (45) days from the date of EPA's request or any access easements or
5 restrictive covenants required by Paragraph 27.c. of this Consent Decree are not submitted to
6 EPA in draft form within forty-five (45) days from EPA's request Settling Defendants shall
7 promptly notify the United States in writing, and shall include in that notification a summary
8 of the steps that Settling Defendants have taken to attempt to comply with Paragraph 27 of
9 this Consent Decree. Settling Defendants may seek relief under the provisions of Section
10 XVIII (Force Majeure) of this Consent Decree for any delay in the performance of the Work
11 resulting from failure to obtain, or a delay in obtaining, any access required for the Work
12 provided that Settling Defendants have met its requirements under this Section. The United
13 States may, as it deems appropriate, assist Settling Defendants, including using its
14 enforcement authorities, in obtaining access or land/water use restrictions, either in the form
15 of contractual agreements or in the form of easements running with the land. Settling
16 Defendants shall reimburse the United States in accordance with the procedures in Section
17 XVI (Payments for Response Costs), for all costs incurred, direct or indirect, by the United
18 States in obtaining such access and/or land/water use restrictions including, but not limited to,
19 the cost of attorney time and the amount of monetary consideration paid or just compensation.

20 29. Settling Defendants acknowledge that the properties of other Settling Defendants
21 in the City of Tacoma Consent Decree affected by the Work to be performed under this
22 Consent Decree include operating businesses. Settling Defendants acknowledge that the right
23 of access provided by this Section should be exercised at reasonable times and in a way which
24 minimizes interference with the operation of those businesses to the extent practicable.
25 Reasonable times for this Remedial Action may be defined as twenty-four (24) hours a day,

1 seven (7) days a week due to the limited work season for dredging projects in the Puget Sound
2 because of the salmonid and bull trout listings under the Endangered Species Act. Settling
3 Defendants or their representatives shall use best efforts to provide five (5) working days'
4 notice to the other Settling Defendants in the City of Tacoma Consent Decree.

5 30. If EPA determines that land/water use restrictions in the form of state or local
6 laws, regulations, ordinances or other governmental controls are needed to implement the
7 remedy selected in the ROD, ensure the integrity and protectiveness thereof, or ensure non-
8 interference therewith, Settling Defendants shall cooperate with EPA's and the State's efforts
9 to secure such governmental controls.

10 31. Notwithstanding any provision of this Consent Decree, the United States retains
11 all of its access authorities and rights, as well as all of their rights to require land/water use
12 restrictions, including enforcement authorities related thereto, under CERCLA, RCRA, or the
13 MTCA, RCW 70.105D, and any other applicable statute or regulations.

14 X. REPORTING REQUIREMENTS

15 32. In addition to any other requirement of this Consent Decree, Settling Defendants
16 shall submit to EPA four (4) copies of written monthly progress reports that: (a) describe the
17 actions which have been taken toward achieving compliance with this Consent Decree during
18 the previous month; (b) include a summary of all results of sampling and tests and all other
19 data received or generated by Settling Defendants or their contractors or agents in the previous
20 month; (c) identify all work plans, plans and other deliverables required by this Consent
21 Decree completed and submitted during the previous month; (d) describe all actions,
22 including, but not limited to, data collection and implementation of work plans, which are
23 scheduled for the next six (6) weeks and provide other information relating to the progress of
24 construction, including, but not limited to, critical path diagrams, Gantt charts and Pert charts;
25 (e) include information regarding percentage of completion, unresolved delays encountered or

1 anticipated that may affect the future schedule for implementation of the Work, and a
2 description of efforts made to mitigate those delays or anticipated delays; (f) include any
3 modifications to the work plans or other schedules that Settling Defendants have proposed to
4 EPA or that have been approved by EPA; and (g) describe all activities undertaken in support
5 of the Community Relations Plan during the previous month and those to be undertaken in the
6 next six (6) weeks. Settling Defendants shall submit these progress reports to EPA by the
7 15th day of every month, or the next business day thereafter, following the lodging of this
8 Consent Decree until EPA notifies the Settling Defendants pursuant to Paragraph 51.b. of
9 Section XIV (Certification of Completion). If requested by EPA, Settling Defendants shall
10 also provide briefings for EPA to discuss the progress of the Work.

11 33. The Settling Defendants shall notify EPA of any change in the schedule described
12 in the monthly progress report for the performance of any activity, including, but not limited
13 to, data collection and implementation of work plans, no later than seven (7) days prior to the
14 performance of the activity.

15 34. Upon the occurrence of any event during performance of the Work that Settling
16 Defendants are required to report pursuant to Section 103 of CERCLA or Section 304 of the
17 Emergency Planning and Community Right-to-know Act (EPCRA), Settling Defendants shall
18 within twenty-four (24) hours of the onset of such event orally notify the EPA Project
19 Coordinator or the Alternate EPA Project Coordinator (in the event of the unavailability of the
20 EPA Project Coordinator), or, in the event that neither the EPA Project Coordinator or
21 Alternate EPA Project Coordinator is available, the Emergency Response Section, Region 10,
22 United States Environmental Protection Agency at (206) 553-1263. These reporting
23 requirements are in addition to the reporting required by CERCLA Section 103 or EPCRA
24 Section 304.

25 35. Within twenty (20) days of the onset of such an event, Settling Defendants shall

1 furnish to Plaintiff a written report, signed by the Settling Defendants' Project Coordinator,
2 setting forth the events which occurred and the measures taken, and to be taken, in response
3 thereto. Within thirty (30) days of the conclusion of such an event, Settling Defendants shall
4 submit a report setting forth all actions taken in response thereto.

5 36. Settling Defendants shall submit four (4) copies of all plans, reports, and data
6 required by the SOW, the Remedial Design Work Plan, the Remedial Action Work Plan, or
7 any other approved plans to EPA in accordance with the schedules set forth in such plans.
8 Settling Defendants shall simultaneously submit one (1) copy of all such plans, reports and
9 data to the State and one (1) copy to National Oceanic Atmospheric Administration
10 ("NOAA") on behalf of the Natural Resource Trustees. Upon request by EPA, Settling
11 Defendants shall submit in electronic form all portions of any report or other deliverable
12 Settling Defendants are required to submit pursuant to the provisions of this Consent Decree.

13 37. All reports and other documents submitted by Settling Defendants to EPA (other
14 than the monthly progress reports referred to above) which purport to document Settling
15 Defendants' compliance with the terms of this Consent Decree shall be signed by an
16 authorized representative of the Settling Defendants.

17 XI. EPA APPROVAL OF PLANS AND OTHER SUBMISSIONS

18 38. After review of any plan, report or other item which is required to be submitted
19 for approval pursuant to this Consent Decree, EPA, after reasonable opportunity for review
20 and comment by the State, shall: (a) approve, in whole or in part, the submission; (b) approve
21 the submission upon specified conditions; (c) modify the submission to cure the deficiencies;
22 (d) disapprove, in whole or in part, the submission, directing that the Settling Defendants
23 modify the submission; or (e) any combination of the above. However, EPA shall not modify
24 a submission without first providing Settling Defendants at least one notice of deficiency and
25 an opportunity to cure within thirty (30) days, except where to do so would cause serious

1 disruption to the Work or where previous submission(s) have been disapproved due to
2 material defects and the deficiencies in the submission under consideration indicate a bad faith
3 lack of effort to submit an acceptable deliverable.

4 39. In the event of approval, approval upon conditions, or modification by EPA,
5 pursuant to Paragraph 38(a), (b), or (c), Settling Defendants shall proceed to take any action
6 required by the plan, report, or other item, as approved or modified by EPA subject only to
7 their right to invoke the Dispute Resolution procedures set forth in Section XIX (Dispute
8 Resolution) with respect to the modifications or conditions made by EPA. In the event that
9 EPA modifies the submission to cure the deficiencies pursuant to Paragraph 38(c) and the
10 submission has a material defect, EPA retains its right to seek stipulated penalties, as provided
11 in Section XX (Stipulated Penalties).

12 40. Resubmission of Plans.

13 a. Upon receipt of a notice of disapproval pursuant to Paragraph 38(d), Settling
14 Defendants shall, within thirty (30) days or such longer time as specified by EPA in such
15 notice, correct the deficiencies and resubmit the plan, report, or other item for approval. Any
16 stipulated penalties applicable to the submission, as provided in Section XX, shall accrue
17 during the 30-day period or otherwise specified period but shall not be payable unless the
18 resubmission is disapproved or modified due to a material defect as provided in Paragraphs 41
19 and 42.

20 b. Notwithstanding the receipt of a notice of disapproval pursuant to Paragraph
21 38(d), Settling Defendants shall proceed, at the direction of EPA, to take any action required
22 by any non-deficient portion of the submission. Implementation of any non-deficient portion
23 of a submission shall not relieve Settling Defendants of any liability for stipulated penalties
24 under Section XX (Stipulated Penalties).

25 41. In the event that a resubmitted plan, report or other item, or portion thereof, is

1 disapproved by EPA, EPA may again require the Settling Defendants to correct the
2 deficiencies, in accordance with the preceding Paragraphs. EPA also retains the right to
3 modify or develop the plan, report or other item. Settling Defendants shall implement any
4 such plan, report, or item as modified or developed by EPA, subject only to their right to
5 invoke the procedures set forth in Section XIX (Dispute Resolution).

6 42. If upon resubmission, a plan, report, or item is disapproved or modified by EPA
7 due to a material defect, Settling Defendants shall be deemed to have failed to submit such
8 plan, report, or item timely and adequately unless the Settling Defendants invoke the dispute
9 resolution procedures set forth in Section XIX (Dispute Resolution) and EPA's action is
10 overturned pursuant to that Section. The provisions of Section XIX (Dispute Resolution) and
11 Section XX (Stipulated Penalties) shall govern the implementation of the Work and accrual
12 and payment of any stipulated penalties during Dispute Resolution. If EPA's disapproval or
13 modification is upheld, stipulated penalties shall accrue as provided in Section XX.

14 43. All plans, reports, and other items required to be submitted to EPA under this
15 Consent Decree shall, upon approval or modification by EPA, be enforceable under this
16 Consent Decree. In the event EPA approves or modifies a portion of a plan, report, or other
17 item required to be submitted to EPA under this Consent Decree, the approved or modified
18 portion shall be enforceable under this Consent Decree.

19 XII. PROJECT COORDINATORS

20 44. Within twenty (20) days of lodging this Consent Decree, Settling Defendants and
21 EPA will notify each other, in writing, of the name, address and telephone number of their
22 respective designated Project Coordinators and Alternate Project Coordinators. If a Project
23 Coordinator or Alternate Project Coordinator initially designated is changed, the identity of
24 the successor will be given to the other Parties at least five (5) working days before the
25 changes occur, unless impracticable, but in no event later than the actual day the change is

1 made. The Settling Defendants' Project Coordinator shall be subject to disapproval by EPA
2 and shall have the technical expertise sufficient to adequately oversee all aspects of the Work.
3 The Settling Defendants' Project Coordinator shall not be any of the Settling Defendants's
4 attorneys in this matter. He or she may assign other representatives, including other
5 contractors, to serve as a Site representative for oversight of performance of daily operations
6 during remedial activities.

7 45. Plaintiff may designate other representatives, including, but not limited to, EPA
8 employees, and federal contractors and consultants, to observe and monitor the progress of
9 any activity undertaken pursuant to this Consent Decree. EPA's Project Coordinator and
10 Alternate Project Coordinator shall have the authority lawfully vested in a Remedial Project
11 Manager (RPM) and an On-Scene Coordinator (OSC) by the National Contingency Plan, 40
12 C.F.R. Part 300. In addition, EPA's Project Coordinator or Alternate Project Coordinator shall
13 have authority, consistent with the National Contingency Plan, to halt any Work required by
14 this Consent Decree and to take any necessary response action when s/he determines that
15 conditions at the Site constitute an emergency situation or may present an immediate threat to
16 public health or welfare or the environment due to release or threatened release of Waste
17 Material.

18 XIII. ASSURANCE OF ABILITY TO COMPLETE WORK

19 46. Within thirty (30) days of entry of this Consent Decree, Settling Defendants shall
20 establish and maintain financial security in the amount of \$15 Million (\$15,000,000) in one or
21 more of the following forms:

- 22 a. A surety bond guaranteeing performance of the Work;
- 23 b. One or more irrevocable letters of credit equaling the total estimated cost of
24 the Work;
- 25 c. A trust fund;

1 d. A guarantee to perform the Work by one or more parent corporations or
2 subsidiaries; or by one or more unrelated corporations that have a substantial business
3 relationship with at least one of the Settling Defendants;

4 e. A demonstration that one or more of the Settling Defendants satisfy the
5 requirements of 40 C.F.R. Part 264.143(f). For this purpose, references in 40 C.F.R.
6 264.143(f) to the "sum of current closure and post-closure costs " shall mean the amount of
7 financial security specified above. If the Settling Defendants who seek to provide a
8 demonstration under 40 C.F.R. 264.143(f) have provided a similar demonstration at other
9 RCRA or CERCLA sites, the amount for which they were providing financial assurance at
10 those other sites should generally be added to the estimated costs of the Work from this
11 paragraph.

12 47. If the Settling Defendants seek to demonstrate the ability to complete the Work
13 through a guarantee by a third party pursuant to Paragraph 46.d. of this Consent Decree,
14 Settling Defendants shall demonstrate that the guarantor satisfies the requirements of 40
15 C.F.R. Part 264.143(f). If Settling Defendants seek to demonstrate their ability to complete
16 the Work by means of the financial test or the corporate guarantee pursuant to Paragraph 46.d.
17 or 46.e., they shall resubmit sworn statements conveying the information required by 40
18 C.F.R. Part 264.143(f) annually, on the anniversary of the Effective Date. In the event that
19 EPA determines at any time that the financial assurances provided pursuant to this Section are
20 inadequate, Settling Defendants shall, within thirty (30) days of receipt of notice of EPA's
21 determination, obtain and present to EPA for approval one of the other forms of financial
22 assurance listed in Paragraph 46 of this Consent Decree. Settling Defendants' inability to
23 demonstrate financial ability to complete the Work shall not excuse performance of any
24 activities required under this Consent Decree.

25 48. If Settling Defendants can show that the estimated cost to complete the remaining

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1 Work has diminished below the amount set forth in Paragraph 46 above after entry of this
2 Consent Decree, Settling Defendants may, on any anniversary date of entry of this Consent
3 Decree, or at any other time agreed to by the Parties, reduce the amount of the financial
4 security provided under this Section to the estimated cost of the remaining work to be
5 performed. Settling Defendants shall submit a proposal for such reduction to EPA, in
6 accordance with the requirements of this Section, and may reduce the amount of the security
7 upon approval by EPA. In the event of a dispute, Settling Defendants may reduce the amount
8 of the security in accordance with the final administrative or judicial decision resolving the
9 dispute.

10 49. Settling Defendants may change the form of financial assurance provided under
11 this Section at any time, upon notice to and approval by EPA, provided that the new form of
12 assurance meets the requirements of this Section. In the event of a dispute, Settling
13 Defendants may change the form of the financial assurance only in accordance with the final
14 administrative or judicial decision resolving the dispute.

15 XIV. CERTIFICATION OF COMPLETION

16 50. Completion of Remedial Action Construction and Report.

17 a. Within thirty (30) days after Performing Defendant makes preliminary
18 determinations that construction is complete for each discrete element of the Remedial Action,
19 as defined in the Remedial Action Work Plan, the Performing Defendant shall notify EPA and
20 the State for the purposes of conducting a prefinal inspection in compliance with the SOW.
21 Within seven (7) days of the inspection, a prefinal construction inspection letter/report shall be
22 submitted to EPA and unresolved issues will be addressed in accordance with the SOW.

23 b. Within thirty (30) days after completion of any work identified in the prefinal
24 inspection reports, the Respondents shall notify EPA and the State for purposes of conducting
25 a final inspection of each discrete Remedial Action element in compliance with the SOW.

1 Resolution of all outstanding items must be documented in the Final Construction Report
2 within thirty (30) days of the final inspection.

3 c. Within thirty (30) days after the last successful construction inspection,
4 including construction of required mitigation, but before all the Performance Standards have
5 been attained (e.g., prior to natural recovery and full functioning of mitigation), Performing
6 Defendant shall submit a written Remedial Action Construction Report requesting
7 certification to EPA. In the report, a registered professional engineer and the Performing
8 Defendant's Project Coordinator shall state that the Remedial Action construction has been
9 completed in full satisfaction of the requirements of this Order. The Report shall comply
10 with the SOW. The report shall contain the following statement, signed by a responsible
11 official of Performing Defendant or the Performing Defendant's Project Coordinator:

12 To the best of my knowledge, after thorough investigation, I certify that the
13 information contained in or accompanying this submission is true, accurate and
14 complete. I am aware that there are significant penalties for submitting false
15 information, including the possibility of fine and imprisonment for knowing violations.
16 Performing Defendant's certification to EPA, and shall not limit EPA's right to perform
17 periodic reviews pursuant to Section 121(c) of CERCLA, 42 U.S.C. § 9621(c), or to take or
18 require any action that in the judgment of EPA is appropriate at the Site, in accordance with
19 42 U.S.C. §§ 9604, 9606, or 9607. Certification of Completion of the Remedial Action
20 construction shall not affect Performing Defendant's obligations under this Order.

21 51. Completion of the Remedial Action in Remedial Action Areas 23 and 24.

22 a. Within thirty (30) days after Settling Defendants conclude that the
23 Remedial Action in Remedial Action Areas 23 and 24 has been fully performed and the
24 Performance Standards have been attained, Settling Defendants shall schedule and conduct a
25 pre-certification inspection to be attended by Settling Defendants and EPA. If, after the pre-
26 certification inspection, the Settling Defendants still believe that the Remedial Action in
27 Remedial Action Areas 23 and 24 has been fully performed and the Performance Standards

1 have been attained, they shall submit a written Remedial Action for Remedial Action Areas 23
2 and 24 Construction Report requesting certification to EPA for approval, with a copy to the
3 State, pursuant to Section XI (EPA Approval of Plans and Other Submissions) within thirty
4 (30) days of the inspection. In the report, a registered professional engineer and the Settling
5 Defendants' Project Coordinator shall state that the Remedial Action in Remedial Action
6 Areas 23 and 24 has been completed in full satisfaction of the requirements of this Consent
7 Decree. The written report shall include as-built drawings signed and stamped by a
8 professional engineer. The report shall contain the following statement, signed by a
9 responsible corporate official of a Settling Defendant or the Settling Defendants' Project
10 Coordinator:

11 To the best of my knowledge, after thorough investigation, I certify that the
12 information contained in or accompanying this submission is true, accurate and
13 complete. I am aware that there are significant penalties for submitting false
information, including the possibility of fine and imprisonment for knowing violations.

14 If, after completion of the pre-certification inspection and receipt and review of the written
15 report, EPA determines that the Remedial Action in Remedial Action Areas 23 and 24 or any
16 portion thereof has not been completed in accordance with this Consent Decree or that the
17 Performance Standards have not been achieved, EPA will notify Settling Defendants in
18 writing of the activities that must be undertaken by Settling Defendants pursuant to this
19 Consent Decree to complete the Remedial Action in Remedial Action Areas 23 and 24 and
20 achieve the Performance Standards. Provided, however, that EPA may only require Settling
21 Defendants to perform such activities pursuant to this Paragraph to the extent that such
22 activities are consistent with the "scope of the remedy selected in the ROD," as that term is
23 defined in Paragraph 14.b. EPA will set forth in the notice a schedule for performance of such
24 activities consistent with the Consent Decree and the SOW or require the Settling Defendants
25 to submit a schedule to EPA for approval pursuant to Section XI (EPA Approval of Plans and

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1 Other Submissions). Settling Defendants shall perform all activities described in the notice in
2 accordance with the specifications and schedules established pursuant to this Paragraph,
3 subject to their right to invoke the dispute resolution procedures set forth in Section XIX
4 (Dispute Resolution).

5 b. If EPA concludes, based on the initial or any subsequent report requesting
6 Certification of Completion that the Remedial Action has been performed in accordance with
7 this Consent Decree and that the Performance Standards have been achieved, EPA will so
8 certify in writing to Settling Defendants. This certification shall constitute the Certification of
9 Completion of the Remedial Action in Remedial Action Areas 23 and 24 for purposes of this
10 Consent Decree. Certification of Completion of the Remedial Action in Remedial Action
11 Areas 23 and 24 shall demonstrate that the Settling Defendants have completed the Remedial
12 Action in Remedial Action Areas 23 and 24, but shall not otherwise affect Settling
13 Defendants' obligations under this Consent Decree.

14 52. Completion of the Work.

15 a. Within ninety (90) days after Settling Defendants conclude that all phases
16 of the Work (including O & M), have been fully performed, Settling Defendants shall
17 schedule and conduct a pre-certification inspection to be attended by Settling Defendants and
18 EPA. If, after the pre-certification inspection, the Settling Defendants still believe that the
19 Work has been fully performed, Settling Defendants shall submit a written report by a
20 registered professional engineer stating that the Work has been completed in full satisfaction
21 of the requirements of this Consent Decree. The report shall contain the following statement,
22 signed by a responsible corporate official of a Settling Defendant or the Settling Defendants'
23 Project Coordinator:

24 . To the best of my knowledge, after thorough investigation, I certify that the
25 information contained in or accompanying this submission is true, accurate and
complete. I am aware that there are significant penalties for submitting false

1 information, including the possibility of fine and imprisonment for knowing violations.

2 If, after review of the written report, EPA, after reasonable opportunity to review and
3 comment by the State, determines that any portion of the Work has not been completed in
4 accordance with this Consent Decree, EPA will notify Settling Defendants in writing of the
5 activities that must be undertaken by Settling Defendants pursuant to this Consent Decree to
6 complete the Work. Provided, however, that EPA may only require Settling Defendants to
7 perform such activities pursuant to this Paragraph to the extent that such activities are
8 consistent with the "scope of the remedy selected in the ROD," as that term is defined in
9 Paragraph 14.b. EPA will set forth in the notice a schedule for performance of such activities
10 consistent with the Consent Decree and the SOW or require the Settling Defendants to submit
11 a schedule to EPA for approval pursuant to Section XI (EPA Approval of Plans and Other
12 Submissions). Settling Defendants shall perform all activities described in the notice in
13 accordance with the specifications and schedules established therein, subject to their right to
14 invoke the dispute resolution procedures set forth in Section XIX (Dispute Resolution).

15 b. If EPA concludes, based on the initial or any subsequent request for
16 Certification of Completion by Settling Defendants and after a reasonable opportunity for
17 review and comment by the State, that the Work has been performed in accordance with this
18 Consent Decree, EPA will so notify the Settling Defendants in writing.

19 XV. EMERGENCY RESPONSE

20 53. In the event of any action or occurrence during the performance of the Work in
21 Remedial Action Areas 23 and 24 which causes or threatens a release of Waste Material from
22 the Site that constitutes an emergency situation or may present an immediate threat to public
23 health or welfare or the environment, Settling Defendants shall, subject to Paragraph 54,
24 immediately take all appropriate action to prevent, abate, or minimize such release or threat of
25

1 release, and shall immediately notify the EPA's Project Coordinator, or, if the Project
2 Coordinator is unavailable, EPA's Alternate Project Coordinator. If neither of these persons
3 are available, the Settling Defendants shall notify the EPA Emergency Response Unit, Region
4 10. Settling Defendants shall take such actions in consultation with EPA's Project
5 Coordinator or other available authorized EPA officer and in accordance with all applicable
6 provisions of the Health and Safety Plans, the Contingency Plans, and any other applicable
7 plans or documents developed pursuant to the SOW. In the event that Settling Defendants fail
8 to take appropriate response action as required by this Section, and EPA takes such action
9 instead, Settling Defendants shall reimburse EPA all costs of the response action not
10 inconsistent with the NCP pursuant to Section XVI (Payments for Response Costs).

11 54. Nothing in the preceding Paragraph or in this Consent Decree shall be deemed to
12 limit any authority of the United States a) to take all appropriate action to protect human
13 health and the environment or to prevent, abate, respond to, or minimize an actual or
14 threatened release of Waste Material on, at, or from the Site, or b) to direct or order such
15 action, or seek an order from the Court, to protect human health and the environment or to
16 prevent, abate, respond to, or minimize an actual or threatened release of Waste Material on,
17 at, or from the Site, subject to Section XXI (Covenants Not to Sue by Plaintiff).

18 XVI. PAYMENTS FOR RESPONSE COSTS

19 55. Payments for Future Response Costs.

20 a. Settling Defendants shall pay to EPA all Future Response Costs not
21 inconsistent with the National Contingency Plan, excluding the first Eight Hundred and Forty
22 Thousand Dollars (\$840,000) of Future Oversight Costs. On a periodic basis the United
23 States will send Settling Defendants a bill requiring payment that includes a Superfund Cost
24 Recovery Package Imaging and Online System (SCORPIOS). Settling Defendants shall make
25 all payments within thirty (30) days of Settling Defendants' receipt of each bill requiring

1 payment, except as otherwise provided in Paragraph 56. Settling Defendants shall make all
2 payments required by this Paragraph by a certified or cashier's check or checks made payable
3 to "EPA Hazardous Substance Superfund," referencing the name and address of the party
4 making the payment, EPA Site/Spill ID Number 109C and DOJ Case Number 90-11-2-726.

5 Settling Defendants shall send the check(s) to:

6 Mellon Bank, EPA-Region 10, ATTN: Superfund Accounting, P.O. Box
7 360903M, Pittsburgh, PA 15251

8 b. At the time of payment, Settling Defendants shall send notice that payment
9 has been made to the United States, to EPA and to the Regional Financial Management
10 Officer, in accordance with Section XXVI (Notices and Submissions).

11 c. The total amount to be paid by Settling Defendants pursuant to
12 Subparagraph 55.a. shall be deposited in the Thea Foss and Wheeler Osgood Waterways
13 Problem Areas Special Account within the EPA Hazardous Substance Superfund to be
14 retained and used to conduct or finance response actions at or in connection with the Site, or
15 transferred by EPA to the EPA Hazardous Substance Superfund.

16 56. Settling Defendants may contest payment of any Future Response Costs under
17 Paragraph 55 if they determine that the United States has made an accounting error or if they
18 allege that a cost item that is included represents costs that are not required to be paid under
19 Paragraph 55.a. or the costs are inconsistent with the NCP. Such objection shall be made in
20 writing within thirty (30) days of receipt of the bill and must be sent to the United States
21 pursuant to Section XXVI (Notices and Submissions). Any such objections shall specifically
22 identify the contested Future Response Costs and the basis for objection. In the event of an
23 objection, the Settling Defendants shall within the thirty (30) day period pay all uncontested
24 Future Response Costs to the United States in the manner described in Paragraph 55.
25 Simultaneously, the Settling Defendants shall establish an interest-bearing escrow account in a

1 federally-insured bank duly chartered in the State of Washington and remit to that escrow
2 account funds equivalent to the amount of the contested Future Response Costs. The Settling
3 Defendants shall send to the United States, as provided in Section XXVI (Notices and
4 Submissions), a copy of the transmittal letter and check paying the uncontested Future
5 Response Costs, and a copy of the correspondence that establishes and funds the escrow
6 account, including, but not limited to, information containing the identity of the bank and bank
7 account under which the escrow account is established as well as a bank statement showing
8 the initial balance of the escrow account. Simultaneously with establishment of the escrow
9 account, the Settling Defendants shall initiate the Dispute Resolution procedures in Section
10 XIX (Dispute Resolution). If the United States prevails in the dispute, within five (5) days of
11 the resolution of the dispute, the Settling Defendants shall pay the sums due (with accrued
12 interest) to the United States in the manner described in Paragraph 55. If the Settling
13 Defendants prevail concerning any aspect of the contested costs, the Settling Defendants shall
14 pay that portion of the costs (plus associated accrued interest) for which they did not prevail to
15 the United States in the manner described in Paragraph 55; Settling Defendants shall be
16 disbursed any balance of the escrow account. The dispute resolution procedures set forth in
17 this Paragraph in conjunction with the procedures set forth in Section XIX (Dispute
18 Resolution) shall be the exclusive mechanisms for resolving disputes regarding the Settling
19 Defendants' obligation to reimburse the United States for its Future Response Costs.

20 57. In the event that the payments required by Paragraph 55 are not made within
21 thirty (30) days of the Settling Defendants' receipt of the bill, Settling Defendants shall pay
22 Interest on the unpaid balance. The Interest on Future Response Costs shall begin to accrue
23 on the date of the bill. The Interest shall accrue through the date of the Settling Defendant's
24 payment. Payments of Interest made under this Paragraph shall be in addition to such other
25 remedies or sanctions available to Plaintiffs by virtue of Settling Defendants' failure to make

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1 timely payments under this Section, including but not limited to, payment of stipulated
2 penalties pursuant to Paragraphs 72 or 73. The Settling Defendants shall make all payments
3 required by this Paragraph in the manner described in Paragraph 55.

4 XVII. INDEMNIFICATION AND INSURANCE

5 58. Settling Defendants' Indemnification of the United States.

6 a. The United States does not assume any liability by entering into this
7 agreement or by virtue of any designation of Settling Defendants as EPA's authorized
8 representatives under Section 104(e) of CERCLA. Settling Defendants shall indemnify, save
9 and hold harmless the United States and its officials, agents, employees, contractors,
10 subcontractors, or representatives for or from any and all claims or causes of action arising
11 from, or on account of, negligent or other wrongful acts or omissions of Settling Defendants,
12 their officers, directors, employees, agents, contractors, subcontractors, and any persons acting
13 on their behalf or under their control, in carrying out activities pursuant to this Consent
14 Decree, including, but not limited to, any claims arising from any designation of Settling
15 Defendants as EPA's authorized representatives under Section 104(e) of CERCLA. Further,
16 the Settling Defendants agree to pay the United States all costs it incurs including, but not
17 limited to, attorneys fees and other expenses of litigation and settlement arising from, or on
18 account of, claims made against the United States based on negligent or other wrongful acts or
19 omissions of Settling Defendants, their officers, directors, employees, agents, contractors,
20 subcontractors, and any persons acting on their behalf or under their control, in carrying out
21 activities pursuant to this Consent Decree. The United States shall not be held out as a party
22 to any contract entered into by or on behalf of Settling Defendants in carrying out activities
23 pursuant to this Consent Decree. Neither the Settling Defendants nor any such contractor shall
24 be considered an agent of the United States.

25 b. The United States shall give Settling Defendants notice of any claim for

1 which the United States plans to seek indemnification pursuant to Paragraph 58.a., and shall
2 consult with Settling Defendants prior to settling such claim.

3 59. Settling Defendants waive all claims against the United States for damages or
4 reimbursement or for set-off of any payments made or to be made to the United States, arising
5 from or on account of any contract, agreement, or arrangement between any one or more of
6 Settling Defendants and any person for performance of Work on or relating to the Site,
7 including, but not limited to, claims on account of construction delays. In addition, Settling
8 Defendants shall indemnify and hold harmless the United States with respect to any and all
9 claims for damages or reimbursement arising from or on account of any contract, agreement,
10 or arrangement between any one or more of Settling Defendants and any person for
11 performance of Work on or relating to the Site, including, but not limited to, claims on
12 account of construction delays.

13 60. No later than fifteen (15) days before commencing any on-site Work, Settling
14 Defendants shall secure, and shall maintain until the first anniversary of EPA's Certification of
15 Completion of the Remedial Action pursuant to Subparagraph 51.b. of Section XIV
16 (Certification of Completion) comprehensive general liability insurance with limits of \$25
17 million dollars, combined single limit, and automobile liability insurance with limits of \$2
18 million dollars, combined single limit, naming the United States as an additional insured. In
19 addition, for the duration of this Consent Decree, Settling Defendants shall satisfy, or shall
20 ensure that their contractors or subcontractors satisfy, all applicable laws and regulations
21 regarding the provision of worker's compensation insurance for all persons performing the
22 Work on behalf of Settling Defendants in furtherance of this Consent Decree. Prior to
23 commencement of the Work under this Consent Decree, Settling Defendants shall provide to
24 EPA certificates of such insurance and a copy of each insurance policy. Settling Defendants
25 shall resubmit such certificates and copies of policies each year on the anniversary of the

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1 Effective Date. If Settling Defendants demonstrate by evidence satisfactory to EPA that any
2 contractor or subcontractor maintains insurance equivalent to that described above, or
3 insurance covering the same risks but in a lesser amount, then, with respect to that contractor
4 or subcontractor, Settling Defendants need provide only that portion of the insurance
5 described above which is not maintained by the contractor or subcontractor.

6 XVIII. FORCE MAJEURE

7 61. "Force majeure," for purposes of this Consent Decree, is defined as any event
8 arising from causes beyond the control of the Settling Defendants, of any entity controlled by
9 Settling Defendants, or of Settling Defendants' contractors, that delays or prevents the
10 performance of any obligation under this Consent Decree despite Settling Defendants' best
11 efforts to fulfill the obligation. The requirement that the Settling Defendants exercise "best
12 efforts to fulfill the obligation" includes using best efforts to anticipate any potential force
13 majeure event and best efforts to address the effects of any potential force majeure event (1) as
14 it is occurring and (2) following the potential force majeure event, such that the delay is
15 minimized to the greatest extent possible. "Force Majeure" does not include financial
16 inability to complete the Work or a failure to attain the Performance Standards.

17 62. If any event occurs or has occurred that may delay the performance of any
18 obligation under this Consent Decree, whether or not caused by a force majeure event, the
19 Settling Defendants shall notify orally EPA's Project Coordinator or, in his or her absence,
20 EPA's Alternate Project Coordinator or, in the event both of EPA's designated representatives
21 are unavailable, the Director of the Environmental Cleanup Office, EPA Region 10, within
22 forty-eight (48) hours of when Settling Defendants first knew that the event might cause a
23 delay. Within five (5) days thereafter, Settling Defendants shall provide in writing to EPA an
24 explanation and description of the reasons for the delay; the anticipated duration of the delay;
25 all actions taken or to be taken to prevent or minimize the delay; a schedule for

1 implementation of any measures to be taken to prevent or mitigate the delay or the effect of
2 the delay; the Settling Defendants' rationale for attributing such delay to a force majeure event
3 if they intend to assert such a claim; and a statement as to whether, in the opinion of the
4 Settling Defendants, such event may cause or contribute to an endangerment to public health,
5 welfare or the environment. The Settling Defendants shall include with any notice all
6 available documentation supporting their claim that the delay was attributable to a force
7 majeure. If Settling Defendants allege failure to obtain access as a force majeure event,
8 Settling Defendants must document in writing specifically what efforts, communications, and
9 offers were made by Settling Defendants to obtain access and Settling Defendants must
10 provide a detailed explanation of how it used best efforts in obtaining access required by
11 Paragraph 27 and Paragraph 61 of this Consent Decree. Failure to comply with the above
12 requirements shall preclude Settling Defendants from asserting any claim of force majeure for
13 that event for the period of time of such failure to comply, and for any additional delay caused
14 by such failure. Settling Defendants shall be deemed to know of any circumstance of which
15 Settling Defendants, any entity controlled by Settling Defendants, or Settling Defendants'
16 contractors knew or should have known.

17 63. If EPA agrees that the delay or anticipated delay is attributable to a force majeure
18 event, the time for performance of the obligations under this Consent Decree that are affected
19 by the force majeure event will be extended by EPA for such time as is necessary to complete
20 those obligations. An extension of the time for performance of the obligations affected by the
21 force majeure event shall not, of itself, extend the time for performance of any other
22 obligation. If EPA does not agree that the delay or anticipated delay has been or will be
23 caused by a force majeure event, EPA will notify the Settling Defendants in writing of its
24 decision. If EPA agrees that the delay is attributable to a force majeure event, EPA will notify
25 the Settling Defendants in writing of the length of the extension, if any, for performance of the

obligations affected by the force majeure event.

64. If the Settling Defendants elect to invoke the dispute resolution procedures set forth in Section XIX (Dispute Resolution), they shall do so no later than fifteen (15) days after receipt of EPA's notice. In any such proceeding, Settling Defendants shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Settling Defendants complied with the requirements of Paragraphs 61 and 62 above. If Settling Defendants carry this burden, the delay at issue shall be deemed not to be a violation by Settling Defendants of the affected obligation of this Consent Decree identified to EPA and the Court.

XIX. DISPUTE RESOLUTION

65. Unless otherwise expressly provided for in this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree. However, the procedures set forth in this Section shall not apply to actions by the United States to enforce obligations of the Settling Defendants that have not been disputed in accordance with this Section.

66. Any dispute which arises under or with respect to this Consent Decree shall in the first instance be the subject of informal negotiations between the parties to the dispute. The period for informal negotiations shall not exceed twenty (20) days from the time the dispute arises, unless it is modified by written agreement of the parties to the dispute. The dispute shall be considered to have arisen when one party sends the other parties a written Notice of Dispute.

67. Statements of Position.

a. In the event that the parties cannot resolve a dispute by informal

1 negotiations under the preceding Paragraph, then the position advanced by EPA shall be
2 considered binding unless, within twenty (20) days after the conclusion of the informal
3 negotiation period, Settling Defendants invoke the formal dispute resolution procedures of this
4 Section by serving on the United States a written Statement of Position on the matter in
5 dispute, including, but not limited to, any factual data, analysis or opinion supporting that
6 position and any supporting documentation relied upon by the Settling Defendants. The
7 Statement of Position shall specify the Settling Defendants' position as to whether formal
8 dispute resolution should proceed under Paragraph 68 or Paragraph 69.

9 b. Within twenty (20) days after receipt of Settling Defendants' Statement of
10 Position, EPA will serve on Settling Defendants its Statement of Position, including, but not
11 limited to, any factual data, analysis, or opinion supporting that position and all supporting
12 documentation relied upon by EPA. EPA's Statement of Position shall include a statement as
13 to whether formal dispute resolution should proceed under Paragraph 68 or 69. Within seven
14 (7) days after receipt of EPA's Statement of Position, Settling Defendants may submit a Reply.

15 c. If there is disagreement between EPA and the Settling Defendants as to
16 whether dispute resolution should proceed under Paragraph 68 or 69, the parties to the dispute
17 shall follow the procedures set forth in the paragraph determined by EPA to be applicable.
18 However, if the Settling Defendants ultimately appeal to the Court to resolve the dispute, the
19 Court shall determine which paragraph is applicable in accordance with the standards of
20 applicability set forth in Paragraphs 68 and 69.

21 68. Formal dispute resolution for disputes pertaining to the selection or adequacy of
22 any response action and all other disputes that are accorded review on the administrative
23 record under applicable principles of administrative law shall be conducted pursuant to the
24 procedures set forth in this Paragraph. For purposes of this Paragraph, the adequacy of any
25 response action includes, without limitation: (1) the adequacy or appropriateness of plans,

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1 procedures to implement plans, or any other items requiring approval by EPA under this
2 Consent Decree; and (2) the adequacy of the performance of response actions taken pursuant
3 to this Consent Decree. Nothing in this Consent Decree shall be construed to allow any
4 dispute by Settling Defendants regarding the validity of the ROD's provisions.

5 a. An administrative record of the dispute shall be maintained by EPA and
6 shall contain all statements of position, including supporting documentation, submitted
7 pursuant to this Section. Where appropriate, EPA may allow submission of supplemental
8 statements of position by the parties to the dispute.

9 b. The Director of the Environmental Cleanup Office, EPA Region 10, will
10 issue a final administrative decision resolving the dispute based on the administrative record
11 described in Paragraph 68.a. This decision shall be binding upon the Settling Defendants,
12 subject only to the right to seek judicial review pursuant to Paragraph 68.c. and d.

13 c. Any administrative decision made by EPA pursuant to Paragraph 68.b. shall
14 be reviewable by this Court, provided that a motion for judicial review of the decision is filed
15 by the Settling Defendants with the Court and served on all Parties within ten (10) days of
16 receipt of EPA's decision. The motion shall include a description of the matter in dispute, the
17 efforts made by the parties to resolve it, the relief requested, and the schedule, if any, within
18 which the dispute must be resolved to ensure orderly implementation of this Consent Decree.
19 The United States may file a response to Settling Defendants' motion.

20 d. In proceedings on any dispute governed by this Paragraph, Settling
21 Defendants shall have the burden of demonstrating that the decision of the Environmental
22 Cleanup Office Director is arbitrary and capricious or otherwise not in accordance with law.
23 Judicial review of EPA's decision shall be on the administrative record compiled pursuant to
24 Paragraph 68.a..

25 69. Formal dispute resolution for disputes that neither pertain to the selection or

adequacy of any response action nor are otherwise accorded review on the administrative record under applicable principles of administrative law, shall be governed by this Paragraph.

a. Following receipt of Settling Defendants' Statement of Position submitted pursuant to Paragraph 67, the Director of the Environmental Cleanup Office, EPA Region 10, will issue a final decision resolving the dispute. The Environmental Cleanup Office Director's decision shall be binding on the Settling Defendants unless, within ten (10) days of receipt of the decision, the Settling Defendants file with the Court and serve on the parties a motion for judicial review of the decision setting forth the matter in dispute, the efforts made by the parties to resolve it, the relief requested, and the schedule, if any, within which the dispute must be resolved to ensure orderly implementation of the Consent Decree. The United States may file a response to Settling Defendants' motion.

b. Judicial review of any dispute governed by this Paragraph shall be governed by applicable principles of law.

70. The invocation of formal dispute resolution procedures under this Section shall not extend, postpone or affect in any way any obligation of the Settling Defendants under this Consent Decree, not directly in dispute, unless EPA or the Court agrees otherwise. Stipulated penalties with respect to the disputed matter shall continue to accrue but payment shall be stayed pending resolution of the dispute as provided in Paragraph 79. Notwithstanding the stay of payment, stipulated penalties shall accrue in accordance with Section XX (Stipulated Penalties). In the event that the Settling Defendants do not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section XX (Stipulated Penalties). EPA may, as part of the resolving the dispute, agree to waive all or part of any accrued penalties.

1 XX. STIPULATED PENALTIES

2 71. Settling Defendants shall be liable for stipulated penalties in the amounts set forth
3 in Paragraphs 72 and 73 to the United States for failure to comply with the requirements of
4 this Consent Decree specified below, unless excused under Section XVIII (Force Majeure).
5 "Compliance" by Settling Defendants shall include completion of the activities under this
6 Consent Decree or any work plan or other plan approved under this Consent Decree identified
7 below in accordance with all applicable requirements of law, this Consent Decree, the SOW,
8 and any plans or other documents approved by EPA pursuant to this Consent Decree and
9 within the specified time schedules established by and approved under this Consent Decree.

10 72. Stipulated Penalty Amounts - Work.

11 a. The following stipulated penalties shall accrue per violation per day for any
12 noncompliance identified in Subparagraph 72.b:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$1,000	1st through 14th day
\$5,000	15th through 30th day
\$8,000	31st day and beyond

17 b. Compliance Milestones.

18 i) Remedial Design Work Plan - failure to meet schedule for or to
19 submit adequate draft and revised final drafts

20 ii) Remedial Design Phases

21 iii) Preliminary (30%) Design - failure to meet schedule for or to
22 submit adequate draft and revised final drafts

23 iv) Prefinal (90%) Design/ (100%) Final Design - failure to meet
24 schedule for or to submit adequate draft and revised final drafts

25 v) Remedial Action Work Plan - failure to meet schedule for or to

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1 submit adequate draft and revised final drafts

2 vi) Remedial Action Construction Schedules -- failure to perform
3 remedial action construction or any discrete phases and/or individual components of the
4 remedial action on the approved schedule or in an adequate manner or not in compliance with
5 the SOW or approved remedial action work plan or deliverables

6 vii) Completion Reports - failure to meet schedule for or to submit
7 adequate completion reports listed below

8 (1) Remedial Action Construction Report

9 (2) Remedial Action Completion Report

10 viii) Operation, Maintenance and Monitoring

11 (1) failure to perform monitoring on schedule or to perform
12 adequate monitoring in accordance with the approved OMMP and approved schedule

13 (2) failure to submit monitoring reports on schedule or in
14 adequate quality

15 (3) failure to perform maintenance on any component of the
16 remedial action on the required schedule and in accordance with approved work plans or EPA
17 requests

18 73. Stipulated Penalty Amounts - Reports.

19 a. The following stipulated penalties shall accrue per violation per day for
20 failure to submit timely or adequate monthly progress reports, any deliverable required by the
21 SOW or this Consent Decree, except those listed in Paragraph 72.b. above, or any other
22 violation of this Consent Decree:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$500	1st through 14th day
\$1,000	15th through 30th day

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\$2,500

31st day and beyond

74. In the event that EPA assumes performance of a portion or all of the Work pursuant to Paragraph 88 of Section XXI (Covenants Not to Sue by Plaintiff), Settling Defendants shall be liable for a stipulated penalty in the amount of \$1 Million (\$1,000,000).

75. All penalties provided for under Paragraphs 72 and 73 shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue: (1) with respect to a deficient submission under Section XI (EPA Approval of Plans and Other Submissions), during the period, if any, beginning on the 31st day after EPA's receipt of such submission until the date that EPA notifies Settling Defendants of any deficiency; (2) with respect to a decision by the Director of the Environmental Cleanup Office, EPA Region 10, under Paragraph 68.b. or 69.a. of Section XIX (Dispute Resolution), during the period, if any, beginning on the 21st day after the date that Settling Defendants' reply to EPA's Statement of Position is received until the date that the Director issues a final decision regarding such dispute; or (3) with respect to judicial review by this Court of any dispute under Section XIX (Dispute Resolution), during the period, if any, beginning on the 31st day after the Court's receipt of the final submission regarding the dispute until the date that the Court issues a final decision regarding such dispute. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Consent Decree.

76. EPA may give Settling Defendants written notification of its determination that they have failed to meet a schedule deadline. EPA will give Settling Defendants written notification of its determination that Settling Defendants have failed to submit an adequate deliverable or have failed to perform the Work in an adequate manner. EPA may send the Settling Defendants a written demand for the payment of the penalties. With respect to

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1 schedule violations, penalties shall accrue as provided in the preceding Paragraph regardless
2 of whether EPA has notified the Settling Defendants of a violation. With respect to adequacy
3 violations, not addressed by Section XI, penalties shall accrue upon Settling Defendants'
4 receipt of EPA's written notification.

5 77. All penalties accruing under this Section shall be due and payable to the United
6 States within thirty (30) days of the Settling Defendants' receipt from EPA of a demand for
7 payment of the penalties, unless Settling Defendants invoke the Dispute Resolution
8 procedures under Section XIX (Dispute Resolution). All payments of stipulated penalties
9 made under this Paragraph shall be identified as "stipulated penalties" and shall be made by
10 certified or cashier's check made payable to "EPA Hazardous Substance Superfund" and shall
11 be deposited in the Thea Foss and Wheeler Osgood Waterway Problem Areas Special Account
12 within the EPA Hazardous Substance Superfund to be retained and used to conduct or finance
13 the response action at or in connection with the Thea Foss and Wheeler Osgood Waterways
14 Problem Areas. After certification of completion of the Thea Foss and Wheeler Osgood
15 Waterway remedial action, any balance remaining in the Thea Foss and Wheeler Osgood
16 Waterway Problem Areas Special Account shall be transferred by EPA to the EPA Hazardous
17 Substance Superfund. All payments shall be mailed to Mellon Bank, EPA-Region 10, ATTN:
18 Superfund Accounting, P.O. Box 360903M, Pittsburgh, PA 15251, shall reference the EPA
19 Region and Site/Spill ID # 109C, the DOJ Case Number 90-11-2-726, and the name and
20 address of the party making payment. Copies of check(s) paid pursuant to this Section, and
21 any accompanying transmittal letter(s), shall be sent to the United States as provided in
22 Section XXVI (Notices and Submissions).

23 78. The payment of penalties shall not alter in any way Settling Defendants'
24 obligation to complete the performance of the Work required under this Consent Decree.

25 79. Penalties shall continue to accrue as provided in Paragraph 76 during any dispute

1 resolution period, but need not be paid until the following:

2 a. If the dispute is resolved by agreement or by a decision of EPA that is not
3 appealed to this Court, accrued penalties determined to be owing shall be paid to EPA within
4 fifteen (15) days of the agreement or the receipt of EPA's decision or order;

5 b. If the dispute is appealed to this Court and the United States prevails in
6 whole or in part, Settling Defendants shall pay all accrued penalties determined by the Court
7 to be owed to EPA within sixty (60) days of receipt of the Court's decision or order, except as
8 provided in Subparagraph c below;

9 c. If the District Court's decision is appealed by any Party, Settling Defendants
10 shall pay all accrued penalties determined by the District Court to be owing to the United
11 States into an interest-bearing escrow account within sixty (60) days of receipt of the Court's
12 decision or order. Penalties shall be paid into this account as they continue to accrue, at least
13 every sixty (60) days. Within fifteen (15) days of receipt of the final appellate court decision,
14 the escrow agent shall pay the balance of the account to EPA or to Settling Defendants to the
15 extent that they prevail.

16 80. If Settling Defendants fail to pay stipulated penalties when due, the United States
17 may institute proceedings to collect the penalties, as well as interest. Settling Defendants shall
18 pay interest on the unpaid balance, which shall begin to accrue on the date of demand made
19 pursuant to Paragraph 77.

20 81. Nothing in this Consent Decree shall be construed as prohibiting, altering, or in
21 any way limiting the ability of the United States to seek any other remedies or sanctions
22 available by virtue of Settling Defendants' violation of this Decree or of the statutes and
23 regulations upon which it is based, including, but not limited to, penalties pursuant to Section
24 122(l) of CERCLA. Provided, however, that the United States shall not seek civil penalties
25 pursuant to Section 122(l) of CERCLA for any violation for which a stipulated penalty is

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provided herein, except in the case of a willful violation of the Consent Decree.

82. Notwithstanding any other provision of this Section, the United States may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Consent Decree.

XXI. COVENANTS NOT TO SUE BY PLAINTIFF

83. In consideration of the actions that will be performed and the payments that will be made by the Settling Defendants under the terms of the Consent Decree, and except as specifically provided in Paragraphs 84, 85 and 87 of this Section, the United States covenants not to sue or to take administrative action against Settling Defendants pursuant to Sections 106 and 107(a) of CERCLA relating to the Site. Except with respect to future liability, these covenants not to sue shall take effect on the Effective Date of this Consent Decree pursuant to Section XXVII. of this Consent Decree. With respect to future liability, these covenants shall take effect for only Remedial Action Areas 23 and 24 upon Certification of Completion of Remedial Action for Remedial Action Areas 23 and 24, and for the remainder of the Site upon Certification of Completion of Remedial Action for Remedial Action Areas 1 through 22. These covenants are conditioned upon the satisfactory performance by Settling Defendants of their obligations under this Consent Decree. These covenants not to sue extend only to the Settling Defendants and do not extend to any other person.

84. United States' Pre-certification Reservations.

a. Notwithstanding any other provision of this Consent Decree, the United States reserves, and this Consent Decree is without prejudice to, the right to institute proceedings in this action or in a new action, or to issue an administrative order seeking to compel Settling Defendants,

i) to perform further response actions relating to the Site or

ii) to reimburse the United States for additional costs of response,

1 subject to subparagraph b. below.

2 b. Actions described in subparagraph a. above may be instituted and/or issued
3 if, prior to Certification of Completion of the Remedial Action,

4 i) conditions at the Site, previously unknown to EPA, are discovered,
5 or

6 ii) information, previously unknown to EPA, is received, in whole or
7 in part,

8 and EPA determines that these previously unknown conditions or information together with
9 any other relevant information indicates that the Remedial Action is not protective of human
10 health or the environment.

11 85. United States' Post-certification Reservations.

12 a. Notwithstanding any other provision of this Consent Decree, the United
13 States reserves, and this Consent Decree is without prejudice to, the right to institute
14 proceedings in this action or in a new action, or to issue an administrative order seeking to
15 compel Settling Defendants,

16 i) to perform further response actions relating to the Site or
17 ii) to reimburse the United States for additional costs of response,
18 subject to subparagraph b. below.

19 b. Actions described in subparagraph a. above may be instituted and/or issued
20 if, subsequent to Certification of Completion of the Remedial Action:

21 i) conditions at the Site, previously unknown to EPA, are discovered,
22 or

23 ii) information, previously unknown to EPA, is received, in whole or
24 in part,

25 and EPA determines that these previously unknown conditions or this information together

1 with other relevant information indicate that the Remedial Action is not protective of human
2 health or the environment.

3 86. For purposes of Paragraph 84, the information and the conditions known to EPA
4 shall include only that information and those conditions known to EPA as of the date of the
5 August, 2000 ESD (August 3, 2000) and set forth in the Record of Decision, as modified by
6 the July 1997 and August 2000 ESD, the administrative records supporting the Record of
7 Decision and the ESDs, as further supplemented by the following remedial design documents
8 and comments thereon: Appendix C, Supplemental Design Study for SSMA7, 30% Design,
9 August 25, 2000; EPA Comments 126 through 137, dated April 2001 on August 25, 2000
10 Appendix C; EPA comments on Appendix G—Supplemental Design Study for RA 23 and 24
11 included as part of the 60% Design materials distributed by the City of Tacoma on October 5,
12 2001; Appendix C, Supplemental Design Study for SSMA7 and Appendix G, Supplemental
13 Design Study for RA23 and RA 24, dated July 2001, submitted as part of 90% Design, on
14 November 13, 2000; Appendix L, City of Tacoma Comments and Responses on EPA's
15 comments on the Preliminary Draft Design Analysis Report, Thea Foss and Wheeler-Osgood
16 Waterways Remediation/St. Paul CDF Project, undated; and EPA Memorandum by Piper
17 Peterson Lee, Remedial Project Manager, dated June 26, 2002, regarding the Request by City
18 of Tacoma to Add Documents to Paragraph 84.d in the City's RD/RA Consent Decree for the
19 Thea Foss and Wheeler Osgood Waterway Problem Areas, Commencement Bay Nearshore
20 /Tideflats Superfund Site, Tacoma, Washington. For purposes of Paragraph 85, the
21 information and the conditions known to EPA shall include only that information and those
22 conditions known to EPA as of the date of Certification of Completion of the Remedial
23 Action and set forth in the Record of Decision, the administrative records supporting the
24 Record of Decision and July, 1997 and August, 2000 ESDs, the post-ROD administrative
25 record, or in any information received by EPA pursuant to the requirements of this Consent

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1 Decree and the City of Tacoma Consent Decree prior to Certification of Completion of the
2 Remedial Action.

3 87. General reservations of rights. The United States reserves, and this Consent
4 Decree is without prejudice to, all rights against Settling Defendants with respect to all matters
5 not expressly included within Plaintiffs' covenant not to sue. Notwithstanding any other
6 provision of this Consent Decree, the United States reserves all rights against Settling
7 Defendants with respect to:

8 a. claims based on a failure by Settling Defendants to meet a requirement of
9 this Consent Decree;

10 b. liability arising from the past, present, or future disposal, release, or threat
11 of release of Waste Materials outside of the Site, including, but not limited to, any other
12 Problem Area or Operable Unit in the CB/NT Site;

13 c. liability for future disposal of Waste Material at the Site, other than as
14 provided in the ROD, the Work required by this Consent Decree or the City of Tacoma's
15 Consent Decree, or otherwise ordered by EPA;

16 d. liability for hazardous substances buried at subsurface depths at the Site as
17 of the Effective Date of this Consent Decree that become exposed or migrate to the surface
18 and, in EPA's discretion, require response;

19 e. liability for remedial response actions in Remedial Action Areas 1 through
20 22 if the City of Tacoma does not perform such response actions under the City's Consent
21 Decree;

22 f. liability for damages for injury to, destruction of, or loss of natural
23 resources, and for the costs of any natural resource damage assessments;

24 g. criminal liability;

25 h. liability for violations of federal or state law which occur during or after

1 implementation of the Remedial Action

2 i. liability, prior to Certification of Completion of the Remedial Action in for
3 additional response actions that EPA determines are necessary to achieve Performance
4 Standards, but that cannot be required pursuant to Paragraph 14 (Modification of the SOW or
5 Related Work Plans);

6 j. liability for future costs that the United States will incur related to the Site
7 but not included within the definition of Future Response Costs; and

8 k. liability for costs incurred or to be incurred by the Agency for Toxic
9 Substances and Disease Registry related to the Site.

10 88. Work Takeover In the event EPA determines that Settling Defendants have
11 ceased implementation of any portion of the Work, are seriously or repeatedly deficient or late
12 in their performance of the Work, or are implementing the Work in a manner which may cause
13 an endangerment to human health or the environment, EPA may assume the performance of
14 all or any portions of the Work as EPA determines necessary. Settling Defendants may invoke
15 the procedures set forth in Section XIX (Dispute Resolution), to dispute EPA's determination
16 that takeover of the Work is warranted under this Paragraph. Costs incurred by the United
17 States in performing the Work pursuant to this Paragraph shall be considered Future Response
18 Costs that Settling Defendants shall pay pursuant to Section XVI (Reimbursement of
19 Response Costs).

20 89. Notwithstanding any other provision of this Consent Decree, the United States
21 retains all authority and reserves all rights to take any and all response actions authorized by
22 law.

23 90. Subject to Section II (Jurisdiction) and Section XXIII., Paragraph 101 (Waiver of
24 Claim-Splitting Defenses), nothing in this Consent Decree shall be deemed a waiver of
25 Settling Defendants' right to assert available defenses against an action brought by the United

States pursuant to its reservation of rights in Paragraph 87.

XXII. COVENANTS BY SETTLING DEFENDANTS

91. Covenant Not to Sue United States. Subject to the reservations in Paragraphs 92 and 93, Settling Defendants hereby covenant not to sue and agree not to assert any claims or causes of action against the United States with respect to the Site or this Consent Decree, including, but not limited to:

a. any direct or indirect claim for reimbursement from the Hazardous Substance Superfund (established pursuant to the Internal Revenue Code, 26 U.S.C. § 9507) through CERCLA Sections 106(b)(2), 107, 111, 112, 113 or any other provision of law;

b. except claims reserved in Paragraph 92.b., any claims against the United States, including any department, agency or instrumentality of the United States under CERCLA Sections 107 or 113 related to the Site, or,

c. any claims arising out of response activities at or in connection with the Site, including any claim under the United States Constitution, the Washington State Constitution, the Tucker Act, 28 U.S.C. § 2412, as amended, or at common law.

92. a. Except as provided in Paragraph 101 (waiver of claim-splitting defenses), these covenants not to sue shall not apply in the event that the United States brings a cause of action or issues an order pursuant to the reservations set forth in Paragraphs 84, 85 and 87(b) - (e) or 87(h) - (k), but only to the extent that Settling Defendants' claims arise from the same response action, response costs, or damages that the United States is seeking pursuant to the applicable reservation.

b. Settling Defendants also reserve the following CERCLA contribution claims against the United States at the Site under section 113(f)(1), 42 U.S.C. 9613(f)(1); (i) alleged CERCLA liability based upon civil works dredging activities of the U.S. Army Corps of Engineers in the Thea Foss Waterway between 1903 and 1949 and as an alleged operator and/or owner of the waterway from its inception to the present; and (ii) alleged

1 CERCLA liability based upon the activities of the United States Navy, if any, in connection
2 with the operations of the Martinac, Tacoma Boat Building, Petrich Shipbuilding, Puget
3 Sound Boatbuilding, and Mojean and Erickson shipyards during World War II (1941-1945).
4 The United States reserves any and all defenses to the claims in this subparagraph.

5 93. The Settling Defendants reserve, and this Consent Decree is without prejudice to,
6 claims against the United States, subject to the provisions of Chapter 171 of Title 28 of the
7 United States Code, for money damages for injury or loss of property or personal injury or
8 death caused by the negligent or wrongful act or omission of any employee of the United
9 States while acting within the scope of his office or employment under circumstances where
10 the United States, if a private person, would be liable to the claimant in accordance with the
11 law of the place where the act or omission occurred. However, any such claim shall not
12 include a claim for any damages caused, in whole or in part, by the act or omission of any
13 person, including any contractor, who is not a federal employee as that term is defined in 28
14 U.S.C. § 2671; nor shall any such claim include a claim based on EPA's selection of response
15 actions, or the oversight or approval of the Settling Defendants' plans or activities. The
16 foregoing applies only to claims which are brought pursuant to any statute other than
17 CERCLA and for which the waiver of sovereign immunity is found in a statute other than
18 CERCLA.

19 94. Nothing in this Consent Decree shall be deemed to constitute preauthorization of
20 a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R.
21 § 300.700(d).

22 95. Covenant by Utilities to Funding Defendants.

23 a. Settling Defendants covenant not to sue and agree to not assert any claims
24 or causes of action against the Funding Defendants in the City of Tacoma Consent Decree
25 with regard to the Site pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. Sections

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1 9607 and 9613, except for claims reserved in subparagraphs b. below.

2 b. Settling Defendants reserve, and this Consent Decree is without prejudice
3 to, claims against individual Funding Defendants for liability with respect to any release or
4 potential threat of a release of a hazardous substance, pollutant, or contaminant at the Site
5 after the date the City signs the City Consent Decree. Settling Defendants also reserve, and
6 this Consent Decree is without prejudice to, claims against individual Funding Defendants for
7 any natural resource damages arising out of or in any way related to any prior releases of
8 hazardous substances, pollutants, or contaminants.

9 XXIII. EFFECT OF SETTLEMENT; CONTRIBUTION PROTECTION

10 96. Nothing in this Consent Decree shall be construed to create any rights in, or grant
11 any cause of action to, any person not a Party to this Consent Decree or the City of Tacoma
12 Consent Decree. The preceding sentence shall not be construed to waive or nullify any rights
13 that any person not a signatory to this decree may have under applicable law. Each of the
14 Parties expressly reserves any and all rights (including, but not limited to, any right to
15 contribution), defenses, claims, demands, and causes of action which each Party may have
16 with respect to any matter, transaction, or occurrence relating in any way to the Site against
17 any person not a Party hereto or the City of Tacoma Consent Decree.

18 97. The Parties agree, and by entering this Consent Decree this Court finds, that the
19 Settling Defendants are entitled, as of the Effective Date, to protection from contribution
20 actions or claims as provided by CERCLA Section 113(f)(2), 42 U.S.C. § 9613(f)(2) for All
21 Matters Addressed in this Consent Decree.

22 98. The Settling Defendants agree that with respect to any suit or claim for
23 contribution brought by them for matters related to this Consent Decree they will notify the
24 United States in writing no later than sixty (60) days prior to the initiation of such suit or
25 claim.

1 99. The United States agrees that with respect to any suit or claim for reimbursement
2 of response costs brought by it for matters related to this Consent Decree it will notify the
3 Settling Defendants in writing no later than sixty (60) days prior to the initiation of such suit
4 or claim.

5 100. The Settling Defendants also agree that with respect to any suit or claim for
6 contribution brought against them for matters related to this Consent Decree they will notify in
7 writing the United States within ten (10) days of service of the complaint on them. In
8 addition, Settling Defendants shall notify the United States within ten (10) days of service or
9 receipt of any Motion for Summary Judgment and within 10 days of receipt of any order from
10 a court setting a case for trial.

11 101. In any subsequent administrative or judicial proceeding initiated by the United
12 States for injunctive relief, recovery of response costs, or other appropriate relief relating to
13 the Site, Settling Defendants shall not assert, and may not maintain, any defense or claim
14 based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-
15 splitting, or other defenses based upon any contention that the claims raised by the United
16 States in the subsequent proceeding were or should have been brought in the instant case;
17 provided, however, that nothing in this Paragraph affects the enforceability of the covenants
18 not to sue set forth in Section XXI (Covenants Not to Sue by Plaintiff).

19 XXIV. ACCESS TO INFORMATION

20 102. Settling Defendants shall provide to EPA, upon request, copies of all documents
21 and information in hardcopy or in electronic format or other format requested by EPA within
22 their possession or control or that of their contractors or agents relating to activities at the Site
23 or to the implementation of this Consent Decree, including, but not limited to, sampling,
24 analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic
25 routing, correspondence, or other documents or information (printed or electronic) related to

1 the Work. Settling Defendants shall also make available to EPA, for purposes of
2 investigation, information gathering, or testimony, their employees, agents, or representatives
3 with knowledge of relevant facts concerning the performance of the Work.

4 103. Business Confidential and Privileged Documents.

5 a. Settling Defendants may assert business confidentiality claims covering
6 part or all of the documents or information submitted to Plaintiff under this Consent Decree to
7 the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C.
8 § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be
9 confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B.
10 If no claim of confidentiality accompanies documents or information when they are submitted
11 to EPA, or if EPA has notified Settling Defendants that the documents or information are not
12 confidential under the standards of Section 104(e)(7) of CERCLA, the public may be given
13 access to such documents or information without further notice to Settling Defendants.

14 b. The Settling Defendants may assert that certain documents, records and
15 other information are privileged under the attorney-client privilege or any other privilege
16 recognized by federal law. If the Settling Defendants assert such a privilege in lieu of
17 providing documents, they shall provide the Plaintiff with the following: (1) the title of the
18 document, record, or information; (2) the date of the document, record, or information; (3) the
19 name and title of the author of the document, record, or information; (4) the name and title of
20 each addressee and recipient; (5) a description of the contents of the document, record, or
21 information; and (6) the privilege asserted by Settling Defendants. However, no documents,
22 reports or other information created or generated pursuant to the requirements of the Consent
23 Decree shall be withheld on the grounds that they are privileged.

24 104. No claim of confidentiality shall be made with respect to any data, including, but
25 not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or

1 engineering data, or any other documents or information evidencing conditions at or around
2 the Site.

3 XXV. RETENTION OF RECORDS

4 105. Until ten (10) years after the Settling Defendants' receipt of EPA's notification
5 pursuant to Paragraph 51.b. of Section XIV (Certification of Completion of the Work), each
6 Settling Defendant shall preserve and retain all non-identical copies of records and documents
7 (including records or documents in electronic form) now in its possession or control or which
8 come into its possession or control that relate in any manner to its liability, under CERCLA
9 with respect to the Site, provided, however, that Settling Defendants who are potentially liable
10 as owners or operators of the Site must retain, in addition, all documents and records that
11 relate to the liability of any other person under CERCLA with respect to the Site. Each
12 Settling Defendant must also retain, and instruct its contractors and agents to preserve, for the
13 same period of time specified above all non-identical copies of the last draft or final version of
14 any documents or records (including documents or records in electronic form) now in its
15 possession or control or which come into its possession or control that relate in any manner to
16 the performance of the Work, provided, however, that each Settling Defendant (and its
17 contractors and agents) must retain, in addition, copies of all data generated during and
18 performance of the Work and not contained in the aforementioned documents required to be
19 retained. Each of the above record retention requirements shall apply regardless of any
20 corporate retention policy to the contrary.

21 106. At the conclusion of this document retention period, Settling Defendants shall
22 notify the United States at least ninety (90) days prior to the destruction of any such records or
23 documents, and, upon request by the United States, Settling Defendants shall deliver any such
24 records or documents to EPA. The Settling Defendants may assert that certain documents,
25 records and other information are privileged under the attorney-client privilege or any other

1 privilege recognized by federal law. If the Settling Defendants assert such a privilege, they
2 shall provide the Plaintiffs with the following: (1) the title of the document, record, or
3 information; (2) the date of the document, record, or information; (3) the name and title of the
4 author of the document, record, or information; (4) the name and title of each addressee and
5 recipient; (5) a description of the subject of the document, record, or information; and (6) the
6 privilege asserted by Settling Defendants. However, no documents, reports or other
7 information created or generated pursuant to the requirements of the Consent Decree shall be
8 withheld on the grounds that they are privileged.

9 107. Each Settling Defendant hereby certifies individually that, to the best of its
10 knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded,
11 destroyed or otherwise disposed of any records, documents or other information (other than
12 identical copies) relating to its potential liability regarding the Site since notification of
13 potential liability by the United States or the filing of suit against it regarding the Site and that
14 it has fully complied with any and all EPA requests for information pursuant to Section 104(e)
15 and 122(e) of CERCLA, 42 U.S.C. 9604(e) and 9622(e), and Section 3007 of RCRA, 42
16 U.S.C. 6927.

17 XXVI. NOTICES AND SUBMISSIONS

18 108. Whenever, under the terms of this Consent Decree, written notice is required to
19 be given or a report or other document is required to be sent by one Party to another, it shall be
20 directed to the individuals at the addresses specified below, unless those individuals or their
21 successors give notice of a change to the other Parties in writing. All notices and submissions
22 shall be considered effective upon receipt, unless otherwise provided. Written notice as
23 specified herein shall constitute complete satisfaction of any written notice requirement of the
24 Consent Decree with respect to the United States, EPA, and the Settling Defendants,
25 respectively.

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Environmental & Natural Resources Division
Environmental Enforcement Section
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044

1 As to the United States:

2 Chief, Environmental Enforcement Section Environment and
3 Natural Resources Division
4 U.S. Department of Justice
5 P.O. Box 7611
6 Washington, D.C. 20044-7611
7 Re: DJ #90-11-2-726

8 and

9 Director, Environmental Cleanup Office
10 United States Environmental Protection Agency
11 Region 10
12 ECL - 111
13 1200 Sixth Avenue
14 Seattle, Washington 98101

15 As to EPA:

16 Piper Peterson Lee
17 EPA Project Coordinator
18 United States Environmental Protection Agency
19 Region 10
20 ECL - 111
21 1200 Sixth Avenue
22 Seattle, Washington 98101

23 As to the Regional Financial Management Officer:

24 Ruth Broome
25 Office of Management and Planning
26 U.S. Environmental Protection Agency
27 OMP-146
28 1200 Sixth Avenue
Seattle, Washington 98101

As to the Settling Defendants:

Performing Defendant's Project Coordinator

XXVII. EFFECTIVE DATE

109. The effective date of this Consent Decree shall be the date upon which this
Consent Decree is entered by the Court, except as otherwise provided herein.

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1 XXVIII. RETENTION OF JURISDICTION

2 110. This Court retains jurisdiction over both the subject matter of this Consent
3 Decree and the Settling Defendants for the duration of the performance of the terms and
4 provisions of this Consent Decree for the purpose of enabling any of the Parties to apply to the
5 Court at any time for such further order, direction, and relief as may be necessary or
6 appropriate for the construction or modification of this Consent Decree, or to effectuate or
7 enforce compliance with its terms, or to resolve disputes in accordance with Section XIX
8 (Dispute Resolution) hereof.

9 XXIX. APPENDICES

10 111. The following appendices are attached to and incorporated into this Consent
11 Decree:

12 "Appendix A" is the ROD and ESDs.

13 "Appendix B" is the SOW.

14 "Appendix C" is the map of the Site.

15 "Appendix D" is the description and map of Remedial Action Areas 23 and 24.

16 XXX. COMMUNITY RELATIONS

17 112. Settling Defendants shall propose to EPA their participation in the community
18 relations plan to be developed by EPA. EPA will determine the appropriate role for the
19 Settling Defendants under the Plan. Settling Defendants shall also cooperate with EPA in
20 providing information regarding the Work to the public. As requested by EPA, Settling
21 Defendants shall participate in the preparation of such information for dissemination to the
22 public and in public meetings which may be held or sponsored by EPA to explain activities at
23 or relating to the Site.

1 XXXI. MODIFICATION

2 113. Schedules specified in this Consent Decree for completion of the Work may be
3 modified by agreement of EPA and the Settling Defendants. All such modifications shall be
4 made in writing.

5 114. Except as provided in Paragraph 14 ("Modification of the SOW or related Work
6 Plans"), no material modifications shall be made to the SOW without written notification to
7 and written approval of the United States, Settling Defendants, and the Court, if such
8 modifications fundamentally alter the basic features of the selected remedy within the meaning
9 of 40 C.F.R. 300.435(c)(2)(B)(ii).. Modifications to the SOW that do not materially alter that
10 document, or material modifications to the SOW that do not fundamentally alter the basic
11 features of the selected remedy within the meaning of 40 C.F.R. 300.435(c)(2)(B)(ii), may be
12 made by written agreement between EPA and the Settling Defendants.

13 115. Nothing in this Decree shall be deemed to alter the Court's power to enforce,
14 supervise or approve modifications to this Consent Decree.

15 XXXII. LODGING AND OPPORTUNITY FOR PUBLIC COMMENT

16 116. This Consent Decree shall be lodged with the Court for a period of not less than
17 thirty (30) days for public notice and comment in accordance with Section 122(d)(2) of
18 CERCLA, 42 U.S.C. § 9622(d)(2), and 28 C.F.R. § 50.7. The United States reserves the right
19 to withdraw or withhold its consent if the comments regarding the Consent Decree disclose
20 facts or considerations which indicate that the Consent Decree is inappropriate, improper, or
21 inadequate. Settling Defendants consent to the entry of this Consent Decree without further
22 notice.

23 117. If for any reason the Court should decline to approve this Consent Decree in the
24 form presented, this agreement is voidable at the sole discretion of any Party and the terms of
25 the agreement may not be used as evidence in any litigation between the Parties.

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1 XXXIII. SIGNATORIES/SERVICE

2 118. Each undersigned representative of a Settling Defendant to this Consent Decree
3 and the Assistant Attorney General for the Environment and Natural Resources Division of
4 the Department of Justice certifies that he or she is fully authorized to enter into the terms and
5 conditions of this Consent Decree and to execute and legally bind such Party to this document.

6 119. Each Settling Defendant hereby agrees not to oppose entry of this Consent
7 Decree by this Court or to challenge any provision of this Consent Decree unless the United
8 States has notified the Settling Defendants in writing that it no longer supports entry of the
9 Consent Decree.

10 120. Each Settling Defendant shall identify, on the attached signature page, the name,
11 address and telephone number of an agent who is authorized to accept service of process by
12 mail on behalf of that Party with respect to all matters arising under or relating to this Consent
13 Decree. Settling Defendants hereby agree to accept service in that manner and to waive the
14 formal service requirements set forth in Rule 4 of the Federal Rules of Civil Procedure and
15 any applicable local rules of this Court, including, but not limited to, service of a summons.
16 The parties agree that Settling Defendants need not file an answer to the complaint in this
17 action unless or until the court expressly declines to enter this Consent Decree.

18 XXXIV. FINAL JUDGMENT

19 121. This Consent Decree and its appendices constitute the final, complete, and
20 exclusive agreement and understanding among the parties with respect to the settlement
21 embodied in the Consent Decree. The parties acknowledge that there are no representations,
22 agreements, or understandings related to the settlement other than those expressly contained in
23 this Consent Decree.

24 122. Upon approval and entry of this Consent Decree by the Court, this Consent
25 Decree shall constitute a final judgment between and among the United States and the Settling

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1 Defendants. The Court finds that there is no just reason for delay and therefore enters this
2 judgment as a final judgment under Fed. R. Civ. P. 54 and 58.
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5 SO ORDERED THIS 7 DAY OF May, 2003

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8 United States District Judge
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1 THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States
2 v. Advance Ross Sub Company, *et. al.*, relating to the Thea Foss and Wheeler-Osgood
3 Waterways Problem Areas, Commencement Bay Nearshore/Tideflats Superfund Site.

4 FOR THE UNITED STATES OF AMERICA

5
6 Date: 2/19/03

Tom Sansonetti/Ag
THOMAS L. SANSONETTI
Assistant Attorney General
U.S. Department of Justice
Environmental and Natural Resources Division
Washington, D.C. 20530

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10
11 Date: Feb 4, 2003

Michael McNulty
MICHAEL MCNULTY
Attorney
Environmental Enforcement Section
Environmental and Natural Resources Division
United States Department of Justice
P.O. Box 7611
Washington, D.C. 20044
(202) 616-8916

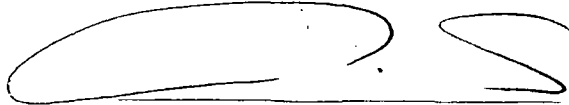
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1 THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States
2 v. Advance Ross Sub Company, *et. al.*, relating to the Thea Foss and Wheeler-Osgood
Waterways Problem Areas. Commencement Bay Nearshore/Tideflats Superfund Site.

3 JOHN MCKAY
4 United States Attorney for the
Western District of Washington

5
6 Date: 2/28/03




7 BRIAN KIPNIS /
8 Assistant United States Attorney
United States Courthouse

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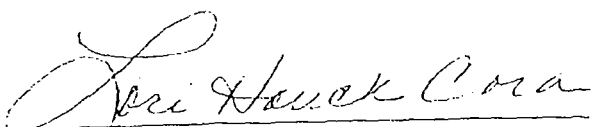
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2 v. Advance Ross Sub Company, *et. al.* relating to the Thea Foss and Wheeler-Osgood
3 Waterways Problem Areas, Commencement Bay Nearshore/Tideflats Superfund Site.

4 Date: 10/29/02


MICHAEL GEARHEARD
Director, Environmental Cleanup Office
Region 10
U.S. Environmental Protection Agency
1200 Sixth Avenue
Seattle, Washington 98101

9 Date: 10/17/02


LORI HOUCK CORA
Assistant Regional Counsel
U.S. Environmental Protection
Agency
1200 Sixth Avenue
Seattle, Washington 98101

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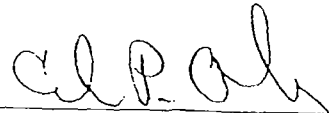
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1 THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States
2 v. Advance Ross Sub Company, et. al., relating to the Thea Foss and Wheeler-Osgood
Waterways Problem Areas, Commencement Bay Nearshore/Tideflats Superfund Site.

3 FOR ADVANCE ROSS SUB COMPANY, a
4 Delaware Corporation

5 Date:

9/24/02



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24 CONSENT DECREE

25 Thea Foss and Wheeler Osgood Waterways Problem Areas
Commencement Bay Nearshore/Tideflats
26 Superfund Site
Page 82

United States Department of Justice
Environmental & Natural Resources Division
Environmental Enforcement Section
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Washington, D.C. 20044

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5 FOR PACIFICORP
6 an Oregon Corporation

7 Date: 9/24/02

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28 Page 83

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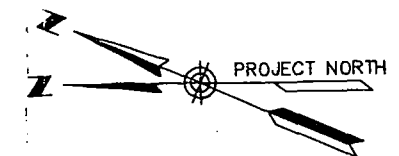
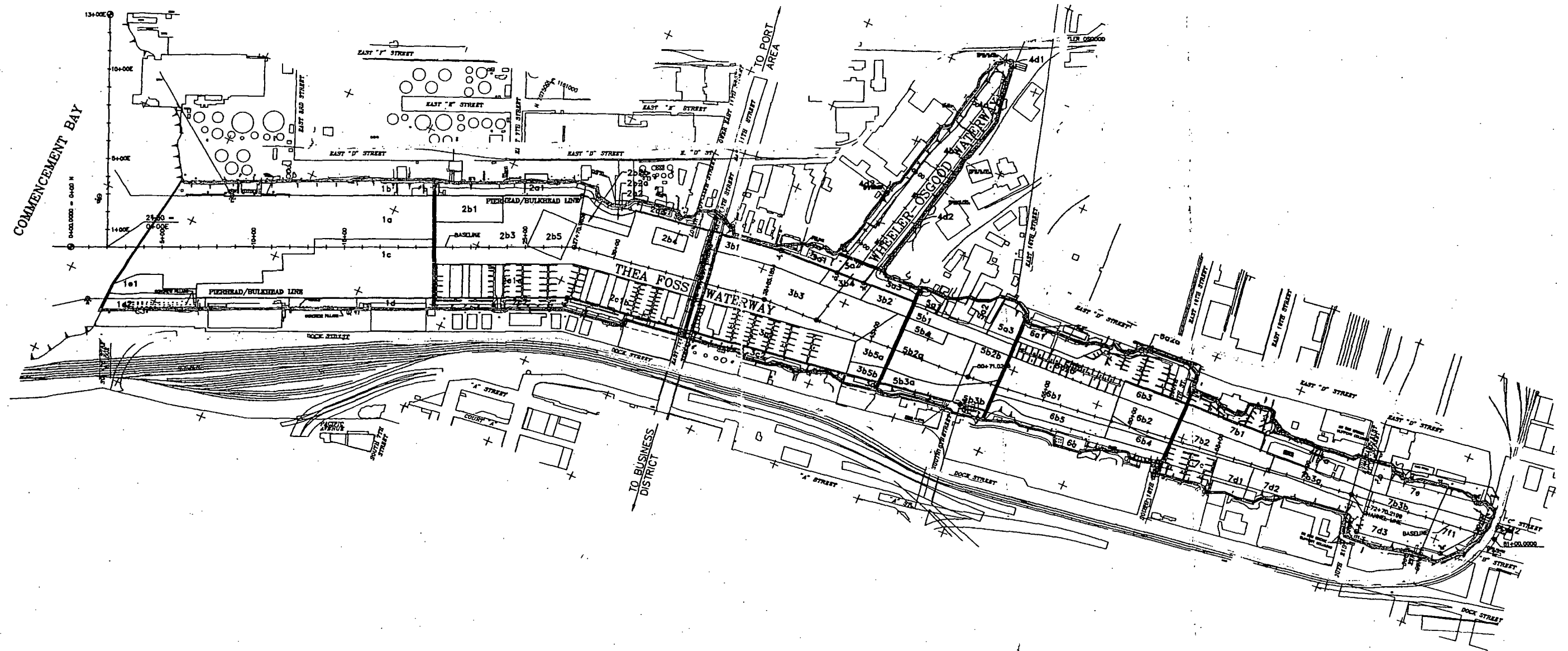
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Thea Foss and Wheeler-Osgood Waterways

APPENDIX G

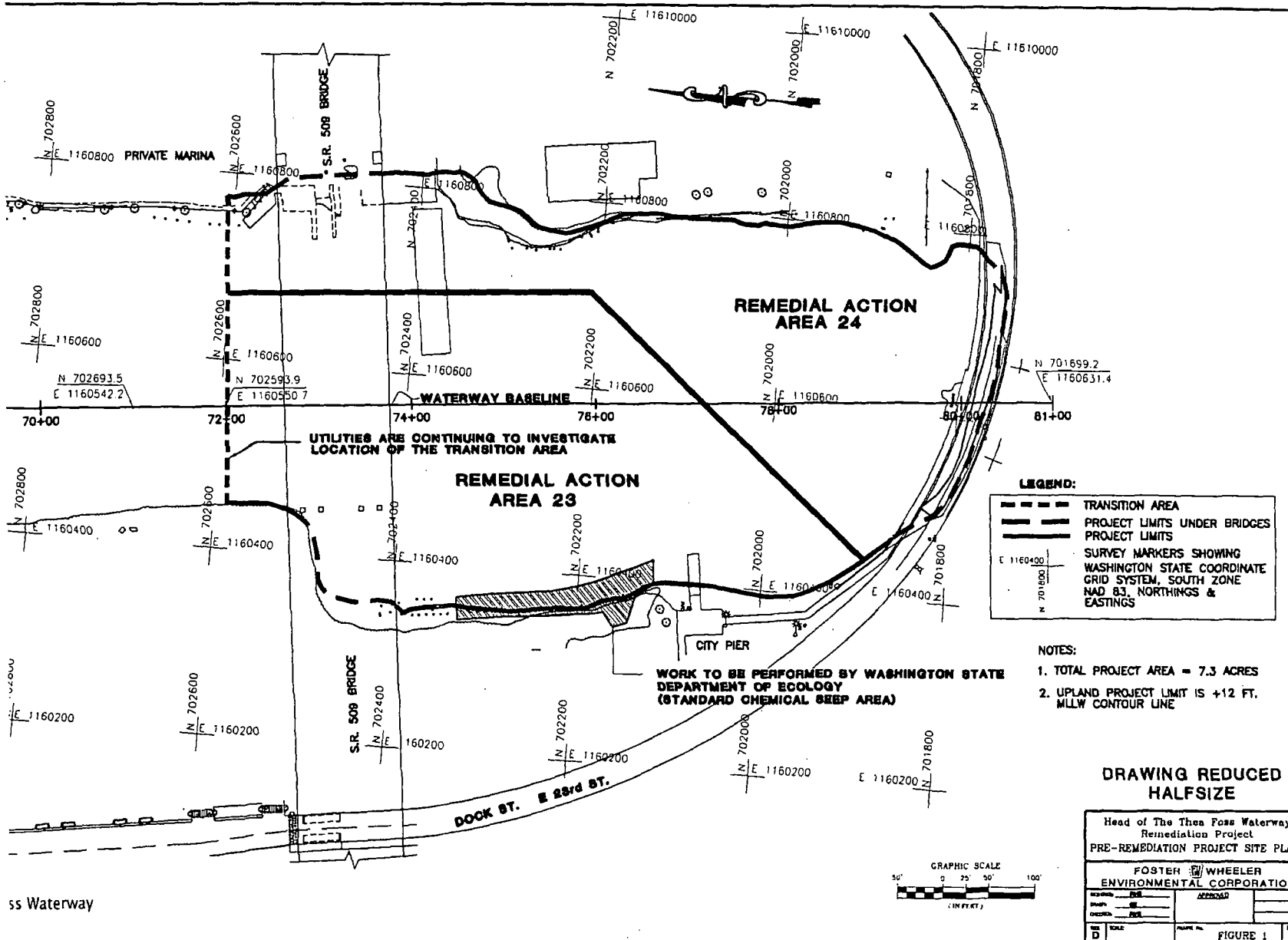
To The RD/RA Consent Decree in the Matter of
United States v. Atlantic Richfield Company et. al.



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HARTCROWE



**STATEMENT OF WORK
REMEDIAL DESIGN, REMEDIAL ACTION, AND LONG-TERM MONITORING**

**REMEDIAL ACTION AREAS 23 AND 24 OF THE THEA FOSS WATERWAY
COMMENCEMENT BAY NEARSHORE/TIDEFLATS SUPERFUND SITE
TACOMA, WASHINGTON**

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Table 1 Sediment Quality Objectives

Table 2 Biological Decision Criteria to be used in RA 23 and 24 of the Thea Foss Waterway RD/RA

Figure 1 Thea Foss RA 23 and 23 Cleanup Areas

I. PURPOSE

The purpose of this Statement of Work (SOW) is to set forth requirements for implementation of the remedial action at the Head of Thea Foss waterway in Remedial Action (RA) Areas 23 and 24. The remedial action set forth herein is a portion of the remedial action set forth in the Record of Decision (ROD), which was signed by the Regional Administrator of the United States Environmental Protection Agency (U.S. EPA), Region 10 on September 30, 1989, for the Commencement Bay Nearshore/Tideflats (CB/NT) Superfund Site (the CB/NT Site), and the Explanation of Significant Difference (ESD) dated July 28, 1997 and a separate ESD dated August 3, 2000. The 1997 ESD modified the sediment cleanup standard for polychlorinated biphenyls (PCBs). The August 2000 ESD specifies the cleanup plan, performance criteria and the disposal sites for the Thea Foss and Wheeler Osgood Waterways, among other areas.

In conducting work specified in this SOW, Advance Ross Sub Company, PacifiCorp, and Puget Sound Energy (Settling Defendants) shall follow the existing documents listed here: the 1989 ROD as modified by the 1997 and 2000 ESDs; this SOW; U.S. EPA Superfund Remedial Design and Remedial Action Guidance; and any additional guidance provided by U.S. EPA in submitting deliverables for designing and implementing the remedial action at RA 23 and 24 of the Thea Foss Waterway problem areas of the CB/NT Site. The Settling Defendants shall also follow the pre-remedial design and design documents provided by the Settling Defendants and approved by the EPA. The Settling Defendants may also elect to follow all or parts of approved remedial design documents that related to Remedial Action Areas 23 and 24 provided by the City of Tacoma while under an Administrative Order on Consent (City AOC) with EPA (March 1994 as amended July 1997). Implementation of this SOW shall result in achieving the CB/NT Site cleanup objectives including the Sediment Quality Objectives in RA 23 and 24 of the Thea Foss Waterway.

II. DESCRIPTION OF REMEDIAL ACTION

A. Key Elements of CB/NT ROD

The CB/NT ROD selected a remedy comprised of five (5) key elements: site use restrictions (now commonly referred to as institutional controls), source control, natural recovery, sediment remedial action (i.e., confinement and habitat restoration), and monitoring, to address contaminated sediments in the waterways of the CB/NT site.

1. Elements of CB/NT ROD to be implemented in this SOW

Three (3) of the five (5) primary elements of the CB/NT ROD will be implemented under this SOW: site use restrictions, sediment remedial action (including necessary habitat mitigation) and monitoring. These elements will be implemented at waterway elevations generally below +12 feet Mean Lower Low Water (MLLW). It has been determined that natural recovery will not occur in Remedial Action Areas 23 and 24, thus, that element of the CB/NT ROD does not apply to this SOW. Source control of ongoing upland sources of hazardous substances to the Thea Foss and Wheeler Osgood Waterway problem areas is not an element of this SOW.

The ROD recognized that the sources of contamination throughout the CB/NT Superfund site would have to be controlled before sediment cleanup could be achieved. The cleanup strategy for CB/NT has been to eliminate or reduce ongoing sources of problem contaminants to the extent practicable before implementing in-water cleanup actions. Efforts on upland (generally above + 12 feet MLLW) source control are being lead by Ecology; monitoring and control efforts on stormwater discharges are being lead by the City of Tacoma. However, monitoring overall source control effectiveness by monitoring post-remediation sediment quality will be implemented under this SOW through the Operations, Maintenance, and Monitoring Plan (OMMP) described Section IV of this SOW. One role of the OMMP will be to assist EPA in verifying source control effectiveness after sediment remedial action has been completed.

2. Standard Chemical NAPL Seep Source Control Element, Not Included in this SOW

Ecology has determined that the Standard Chemical NAPL seep on the west bank of the head of the Thea Foss waterway is part of the Standard Chemical Site that includes a portion of the waterway below +12 feet MLLW. Standard Chemical, a defunct company, operated a tar refinery on this site between 1916 and 1922. Ecology has determined that this is an orphan site, and Ecology itself will be performing remedial actions at both the upland portion of the site (above +12 feet MLLW) and at the seep area (below +12 feet MLLW).

Some portion of Ecology's Standard Chemical Seep work will be located in the waterway. This work will involve removal of NAPL source material from the Standard Chemical property, which is located with the boundaries of the RA 23 and 24 area. Coordination with Ecology's work on the Standard Chemical property work will be addressed in an Agreed Order on Consent between Ecology and the Settling Defendants.

B. Cleanup Objectives

The cleanup objectives for the remedial action, as described in Section 10 of the 1989 ROD, state that "the selected remedy is to achieve acceptable sediment quality in a reasonable time frame" (CB/NT ROD, p. 97). Habitat function and enhancement of fisheries resources are also project cleanup objectives.

1. Acceptable Sediment Quality in a Reasonable Time Frame

"Acceptable sediment quality" is defined as "the absence of acute or chronic adverse effects on biological resources or significant human health risk" (CB/NT ROD, p.62). The ROD designated biological test requirements and associated sediment chemical concentrations referred to as SQOs to attain cleanup objectives for the CB/NT site. The PCB SQO was subsequently updated in a 1997 ESD.

SQOs are performance standards for the CB/NT site. SQOs for individual chemical contaminants that are specified in the ROD, as amended in the 1997 ESD, are provided in Table 1 to this SOW. The SQOs are the enforceable cleanup standards for this SOW. In addition to the SQOs, Settling Defendants may elect, with EPA approval, to perform biological toxicity tests for all chemicals except PCBs to demonstrate the absence of biological effects predicted by the SQOs. Toxicity testing may also be used to assess the

suitability of sediments for open-water disposal when chemical data predict that biological effects might be present. Relevant biological test criteria are provided in Table 2 to this SOW.

A "reasonable time frame" incorporates the ROD's selection of natural recovery for sediments in the CB/NT site that are minimally contaminated and are predicted to naturally recover within 10 years from implementation of the remedial action in any given problem area. No natural recovery areas are present in RA 23 or 24. Active remediation by dredging and confined disposal or in-situ capping is required and the time frame for achieving the SQOs in these Remedial Action Areas shall be at the end of construction of the remedial action in those Remedial Action Areas.

2. Habitat Function and Enhancement of Fisheries Resources

Habitat function and enhancement of fisheries resources have also been incorporated as part of the overall project cleanup objectives and remedial design. For example, the physical characteristics and placement of material used for capping contaminated sediments in the marine environment will be required to provide a suitable substrate and habitat for aquatic organisms that may utilize that environment. The scope and focus of these activities will be determined on a project-specific basis during remedial design. Consideration of habitat function and enhancement of fisheries resources is required under this SOW to meet cleanup objectives and comply with ARARs, including the Clean Water Act, Endangered Species Act, and the Puyallup Tribe of Indians Settlement Act of 1989.

C. RA 23 and 24 Work Areas

RA 23 and 24 work areas are designated on the map and are more fully described in Appendix D attached to the Consent Decree and on Figure 1 in the SOW.

1. RA 23 and 24 Dredge Area

The purpose of dredging in RA 23 and 24 is to create sufficient space to lay a cap that meets all performance standards contained in Section III.A. of this SOW and any additional standards, criteria, or limitations identified in the approved Remedial Design. The specific dredge footprint has not yet been determined and will be consistent with a small boat turning basin with a bottom elevation of -9 feet MLLW as proposed by the Washington Department of Natural Resources (DNR).

2. RA 23 and 24 Cap Area

The cleanup plan anticipates that RA 23 and 24 will be capped. Some areas will be capped after dredging, while some areas will be capped where no dredging has occurred.

III. PERFORMANCE STANDARDS

The Settling Defendants shall adhere to the following performance standards for the design and implementation of the RA 23 and 24 RD/RA. These performance standards, as stated in the 2000 ESD, are consistent with the cleanup objectives and are necessary to ensure that the remedy is protective of human health and the environment, and complies with

that the remedy is protective of human health and the environment, and complies with Applicable or Relevant and Appropriate Requirements (ARARs). Performance standards shall include cleanup standards, standards of control, quality criteria, and other substantive requirements, criteria, or limitations including all ARARs set forth in the ROD, ESDs, SOW, and/or Consent Decree, and approved deliverables under this SOW. Settling Defendants shall address these performance standards in remedial design and shall identify additional performance standards and methods necessary to successfully implement the remedial action, including performance standards to monitor the long-term effectiveness of the remedial action and mitigation areas, if any.

Settling Defendants shall perform the cleanup actions required under this SOW to ensure that performance standards are achieved for RA 23 and 24. To the extent that individual property owners request design elements not covered by this SOW (e.g., property improvements), the time lines and coordination for the cleanup with respect to items outside the scope of this SOW shall be identified in the modified RD and RA Work Plans and addressed in other deliverables as necessary to ensure the sediment remedial action is conducted in compliance with this SOW and the remedial action schedule.

A. Cap Requirements

One of the remedial actions selected in the 1989 ROD and included in the preliminary cleanup plans for the RA 23 and 24 is capping. Settling Defendants shall follow EPA guidance, "Guidance for In-situ Subaqueous Capping of Contaminated Sediments", September 1998, Reference EPA 905-B6-004, and other relevant guidance, for the design and construction of capped areas.

In the remedial design, Settling Defendants shall evaluate RA 23 and 24 to identify a final design, either capping or dredging or both. The Settling Defendants' basis for design shall address the following factors:

- protectiveness of the proposed cap,
- compatibility with current and anticipated future land use,
- property owner's willingness to implement use restrictions on the capped area and/or ensure such restrictions will run with the land,
- engineering constraints, and
- avoidance of habitat impacts and any necessary mitigation required under CWA Section 404, and compliance with Endangered Species Act measures that may be identified.

EPA intends to maintain the integrity and effectiveness of any capped area over contaminated sediments through requirements for construction, long-term monitoring, and maintenance, including the following:

1. Caps will have a minimum thickness of three (3) feet and will be constructed to address adverse impacts through four primary functions:
 - a. Physical isolation of the contaminated sediment from the ecological receptors;

- b. Complete physical confinement and stabilization of contaminated sediments, preventing resuspension and transport to other locations within the waterway;
- c. Reduction of contaminants transported through the groundwater pathway to levels that will not recontaminate surface sediments (defined as the "biologically active zone" where most sediment-dwelling organisms live) above the SQOs, and will not contaminate surface water at levels exceeding background concentrations or marine chronic water quality criteria;
- d. Provide a cap surface that promotes colonization by aquatic organisms.

2. Performance Standards for the NAPL Capping.

A final remedial design will be based on contaminant mobility modeling and appropriate studies, that determine that NAPL in the waterway will be stabilized and prevented from migrating to other portions of the waterway and from recontaminating surface sediments. In addition to meeting the performance requirements discussed in (1.) above, a NAPL cap must, at a minimum, meet the following requirements:

- a. The final design of the cap must demonstrate that hydraulic control can be achieved in order to prevent remobilization of NAPL within the waterway;
- b. The final design must demonstrate that it prevents recontamination from any source material below the cap;
- c. The cap must require minimal maintenance;
- d. NAPL stabilization should include removal of contaminant source material where necessary for effective confinement.

EPA will require additional source removal and/or modification of the cap design if these performance criteria cannot be met by the Settling Defendants's remedial design and implementation.

3. Long-term monitoring of the cap will include, as appropriate, visual inspection, bathymetric survey, sediment deposition monitoring, chemical monitoring, and biological monitoring.

Settling Defendants shall demonstrate that all capped areas are completed in accordance with these performance standards. The methods for achieving the objectives for the capped areas shall be set forth in the Remedial Design Report. Verification of performance standards shall be documented in the Construction Quality Assurance Plan (CQAP), and the OMMP, as appropriate. As-builts shall be provided for capped areas in the Remedial Action Construction Report.

B. Dredging and Material Disposal

Performance standards entail designing and implementing the dredging necessary to achieve SQOs for those areas EPA has determined will not naturally recover within 10 years. Performance standards for dredging shall be consistent with the CB/NT ROD and

ARARs including the Clean Water Act, Rivers and Harbors Act, and Endangered Species Act requirements. The primary purpose of dredging performed under this SOW will be to remove surface sediment to make sufficient space to place a protective cap over the remaining contaminated sediment. Not all sediments exceeding the SQOs will be dredged.

Under this SOW, RA 23 and 24 of the Thea Foss Waterway will be subject to the following monitoring: (1) short-term monitoring to ensure that marine chronic water quality standards or background concentrations are not exceeded in surface water during in-water activities (e.g., capping or dredging), and (2) long-term monitoring to ensure that all the objectives stated in Section IV.G of this SOW are met.

Contaminated sediment shall be dredged and disposed of in an upland disposal site or other disposal site consistent with the disposal options identified in the ESD. As-builts of all dredged surfaces shall be provided to EPA in the Remedial Action Construction Report. Settling Defendants shall document to EPA quantities (in-place volumes), and disposal location (e.g., upland or other appropriate disposal options identified in the ESD) for material dredged from RA 23 and 24 of the Thea Foss waterway.

The methods for achieving the objectives for dredged areas and disposal sites shall be set forth in the Remedial Design Report, the CQAP, and the OMMP, as appropriate. Verification that performance standards have been achieved shall be documented in the pre-final construction reports and the OMMP, as appropriate.

C. Containment of Subsurface Contamination

The preliminary design for this SOW includes dredging or containing all areas of subsurface contamination that EPA determined had a high to moderate potential for future exposure. Contaminated subsurface sediments that EPA determined had a low potential for exposure will require long-term monitoring under this SOW. Exposure of contaminated subsurface sediments may occur during the cleanup by dredging adjacent areas, through physical processes, such as storms or ship scour, or through future dredging or excavation. In order for subsurface contamination to remain in place, it must either be present at such low levels that it would not present a risk if it were exposed, or it must have a very low potential for exposure. For RA 23 and 24, the entire area has contaminated surface sediment that requires remediation. As stated in Section B. above, dredging will be conducted in these areas to create sufficient space for capping but will not achieve SQOs. Settling Defendants shall prepare a final remedial design and implement the remedial action to ensure that contaminated subsurface sediment is not exposed and that SQOs are achieved at the surface of every dredge cut by capping over dredge cuts with SQO exceedances.

D. Habitat Mitigation

Settling Defendants shall take all appropriate measures during remedial design, construction, and site maintenance to avoid and minimize adverse impacts to the aquatic environment. Such measures required by EPA include, but are not limited to, avoidance of fish-critical activity periods for in-water work, incorporation of "best-design" features and/or materials into remedial and compensatory mitigation plans that protect or enhance ESA-listed species, or protect, create or restore critical salmonid habitat. Additionally,

Settling Defendants shall submit compensatory mitigation plans to offset unavoidable loss and other impacts to aquatic habitat and meet ESA responsibilities.

It is EPA's intent that remedial action, including required compensatory mitigation (if any), contribute toward the recovery of ESA-listed species. Drawing from the Commencement Bay-wide conservation and recovery strategy in the *Commencement Bay Aquatic Ecosystem Assessment*, Simenstad 2000 ("the Simenstad report"), EPA has identified the following "performance criteria" that must, at a minimum, be addressed in any acceptable compensatory mitigation plan:

1. All compensatory mitigation must be consistent with the criteria and findings of the Simenstad report.
2. Preference will be given to compensatory mitigation plans that are consistent with habitat function prioritization criteria¹ (to be determined).
3. All compensatory mitigation plans will include an assessment of how they contribute toward recovery.
4. Mitigation plans must include consideration for connectivity (i.e., habitat that is linked or capable of being linked to other habitat and is intended to avoid mitigative actions that are geographically isolated and underutilized by the target species and/or do not reach full function).
5. Compensatory mitigation sites will be located within or will provide connections to or between one or more of the critical areas of "salmon landscape" (e.g., osmoregulatory transition) described by the Simenstad report within the Commencement Bay and lower Puyallup River watershed.
6. The aspect of *risk* of mitigation success/failure must be specifically factored into habitat plans and provided for up-front rather than solely as a post-construction contingency (i.e., in most cases this will mean additional habitat acreage).
7. All compensatory mitigation plans will include measurable performance objectives, management, monitoring and reporting requirements, responsibilities, and schedule.
8. Native species only will be utilized in any plantings to the maximum extent practicable.
9. Mitigation plans should include facility design and site plans for any development/redevelopment that occurs as a result of a fill. The facility and site plans must ensure that the facility and site characteristics and functions do not create adverse impacts to water, sediment and habitat quality during construction and operation.

EPA may consider mitigation proposals that do not meet all of the performance criteria if the Settling Defendants demonstrate that the proposal is otherwise consistent with the

¹The Simenstad report identifies "several emerging 'visions' on broad-scale restoration of the delta-Bay" (p. 3) as well as efforts for upriver restoration (p. 9). The report also identifies a number of parcels or groups of parcels as potential sites. After consultation with the Services, resource agencies, and the Tribes, EPA has adopted the priorities identified in the Simenstad report as an adequate prioritization of preferred habitat functions upon which to evaluate proposed mitigation plans.

Simenstad report or otherwise significantly contributes to conservation and recovery of ESA-listed species.

Remedial activities in RA 23 and 24 will result in the dredging and/or capping during an expected 2-3 month construction period, consequently eliminating non-mobile benthos during that time. These actions include the capping of intertidal and shallow subtidal habitat and the dredging and capping of subtidal habitat. The resulting substrate will consist of clean imported capping material (e.g., sand, silty sand) or clean native sediment. For capped areas, Settling Defendants shall provide a capped surface that promotes colonization by aquatic organisms which may incorporate soft or organic-rich substrates beneficial to salmonids (e.g., "fish mix" or a silt-sand mix) as a remedial design element for use as final capping material.

IV. WORK TO BE PERFORMED BY SETTLING DEFENDANTS

In 1994, the City of Tacoma undertook remedial design activities for the Thea Foss and Wheeler Osgood Waterways under an Administrative Order on Consent (AOC) (March 1994). Under the AOC, the City conducted sampling and analysis to further refine the areal extent of contamination in the Waterways and conducted analysis for determining where natural recovery was feasible, what areas needed to be dredged, what areas could be capped, and where the dredged sediment could be disposed. Based on the City's work, EPA selected the final remediation plan in the August 2000 ESD. In accordance with the AOC, the Preliminary Draft Design Analysis Report (e.g., 30% design) was submitted to EPA on August 25, 2000 and included a design for the head of the waterway. During July and August of 2001, the City conducted additional work in the head of the waterway that was incorporated into an intermediate design deliverable (i.e., 60% design) to modify the cap design. On October 1, 2001, Good Faith Offers were submitted to EPA by the City and the Settling Defendants that outlined a division of work where the Settling Defendants' would prepare a design and perform the remedial actions in the head of the waterway.

Many design elements in RA 23 and 24 may require further work (e.g., cap design, habitat mitigation, the OMMP). This Statement of Work requires the Settling Defendants to complete a Remedial Design and conduct Remedial Action for RA 23 and 24.

The scope of work for remedial design and remedial action for RA 23 and 24 includes the following key components:

- Design and construct RA 23 and 24 intertidal sediment remedial actions: capping, dredging, and disposal;
- Design and construct habitat mitigation for unavoidable impacts;
- Design and construct RA 23 and 24 subtidal sediment remedial actions: capping, dredging and disposal;
- Handle/transport/dispose of dredged sediments to an upland disposal facility or other location consistent with the August 2000 ESD that is consistent with the nature and concentrations of the contaminants found in the materials to be disposed of ;

- Perform construction monitoring and long-term monitoring.

To accomplish this scope of work the remedial design/remedial action shall consist of the following seven (7) tasks (A through G). Settling Defendants shall be responsible for implementing additional work elements necessary for successful implementation of the Thea Foss and Wheeler Osgood Waterways remedial action. All plans are subject to EPA approval.

- A. Remedial Design Work Plan
- B. Remedial Design Phases
 - 1. Preliminary (30%) Design
 - 2. Intermediate Design Deliverables (as specified)
 - 3. Pre-final (90%) Design/ (100%) Final Design
- C. Remedial Action Work Plan
- D. Remedial Action/Construction
 - 1. Preconstruction Inspection/Meeting
 - 2. RA Progress Meetings
 - 3. Pre-final Construction Inspection
 - 4. Final Construction Inspection
 - 5. Reports
 - a. Remedial Action Construction Report
 - b. Final Remedial Action Report
- E. Performance Monitoring and Construction Quality Assurance Plan
- F. Permitting and Site Access Plan
- G. Long-term Operation, Maintenance & Monitoring Plan

Additional details on each task are provided below. All documents, including work plans, reports, and memoranda, required under this SOW are subject to EPA review and approval. Unless otherwise specified by EPA, a draft version of each document shall be submitted to EPA for review and comment. Within thirty (30) calendar days of receipt of EPA's comments on a draft document, the Settling Defendants shall submit to EPA a revised final document that incorporates EPA's modifications or summarizes and addresses EPA's concerns. All deliverables submitted in response to EPA's comments shall include a transmittal that responds directly to each comment, and identifies how the comment was addressed in the deliverable. This SOW also specifies submittal of certain documentation (e.g., construction progress reports, monthly progress reports) that will be used by EPA for informational purposes only but will not be formally approved by EPA.

A. Remedial Design Work Plan

Within thirty (30) days after notice of authorization to proceed, Settling Defendants shall submit a Remedial Design Work Plan in accordance with §VI and Paragraph 11 of the Consent Decree and Section V (Schedule of Deliverables) of this SOW. The RD Work Plan shall document the overall management strategy for performing the design, construction, operation, maintenance, and monitoring of remedial actions for U.S. EPA to review and approve. The plan shall document the responsibility and authority of all organizations and key personnel involved with the implementation and shall include a description of qualifications of key personnel directing the remedial design, including contractor personnel. Contact information (addresses, phone numbers, and e-mail) and general

responsibilities for key personnel shall be provided. The Work Plan shall also contain a schedule of remedial design activities.

Extensive pre-remedial design sampling was completed for the Site at the head of the Thea Foss Waterway. The RD Work Plan shall include a brief summary of the work completed, identifying key documents, and summarizing key conclusions and sampling results. The RD Work Plan shall also include any data collected after pre-remedial design sampling. The RD Work Plan shall include a review of the pre-remedial design and remedial design data collected and identify additional data needs or retesting necessary to initiate or complete the remedial design and implement the remedial action. Discussion of additional data needs shall include, but not be limited to:

- Further characterization of SSMA7
- PSDDA sampling
- Data for habitat mitigation

For additional sampling required under this SOW, the RD Work Plan shall include, at a minimum, a Quality Assurance Project Plan (QAPP), Health and Safety Plan (HSP), Field Sampling Plan (FSP) and schedule for additional sampling or remedial design field activities.

The Settling Defendants shall implement remaining pre-design work in accordance with the final RD Work Plan. The results of the pre-design studies shall be included with the thirty (30) percent design, if possible, or other intermediate design deliverables as specified in the RD Work Plan. Settling Defendants may update the pre-remedial design sampling plans (e.g., QAPP, FSP, HSP) previously prepared for the pre-remedial design effort completed to date for the Thea Foss and Wheeler Osgood Waterways and resubmit them for EPA's approval under this SOW.

In addition to describing the overall management strategy and identifying additional data needs as described above, Settling Defendants shall make all reasonable efforts to communicate to the public and business community and coordinate work under this SOW to minimize disruption of normal use of the Thea Foss and Wheeler Osgood Waterways and adjacent project areas. In the RD Work Plan, Settling Defendants shall address scheduling and coordination of work under this SOW with other in-water work or navigation near the project area that may occur. Settling Defendants shall identify any known development projects anticipated on or near intertidal properties that are subject to work under this SOW.

B. Remedial Design Phases

The remedial design is generally defined as those activities to be undertaken to develop the final plans and specifications, general provisions, special requirements, and all other technical and procurement documentation necessary to fully implement the remedial action at this Site as described in the CB/NT ROD and this SOW. Settling Defendants shall prepare construction plans and specifications to implement the remedial actions at the Site as described in the ROD and this SOW. Plans and specifications shall be submitted in accordance with the schedule set forth in Section V below. Subject to approval by U.S. EPA, Settling Defendants may submit more than one set of design submittals reflecting different components of the remedial action. All remedial design work, including plans and

specifications, shall be developed in accordance with U.S. EPA's Superfund Remedial Design and Remedial Action Guidance (OSWER Directive No. 9355.0-4A) and shall demonstrate that the remedial action shall meet all objectives of the ROD, ESD, CD, and this SOW, including all performance standards. Settling Defendants shall meet regularly with U.S. EPA to discuss design issues. These meetings must occur at least monthly, unless a less frequent schedule is agreed to by EPA.

1. Preliminary Design (30%)

Settling Defendants shall submit the Preliminary Design when the design effort is approximately thirty (30) percent complete. The Preliminary Design submittal shall include or discuss, at a minimum, the following:

- a. Results of additional field sampling if available at the time of 30% design submittal;
- b. Preliminary plans, drawings, and sketches, including an outline of required specifications not otherwise provided in detail and a list of all final drawings to be included in pre-final and final design;
- c. Basis for Design Report, with detailed design assumptions, parameters, design restrictions and objectives, including but not limited to:

General Elements:

- i. descriptions of the analyses conducted to select the design approach, including a summary and detailed justification of design assumptions;
- ii. order in which dredging and capping will occur;
- iii. technical parameters and essential supporting calculations (at least one sample calculation presented for each significant or unique design calculation) upon which the design will be based, including but not limited to design requirements for each active remedy (e.g., dredging, capping);
- iv. access and easement requirements, including and evaluation of the most appropriate site use restrictions for each element of the remedial action to ensure long-term effectiveness;
- v. coordination with other in-water work or navigation and commerce and discussion of the City of Tacoma's remedial activities;
- vi. permit requirements or substantive requirements of permits;
- vii. preliminary construction schedule, including contracting strategy;
- viii. plans and protocols for capping or dredging around pilings, piers, and other structures;

Capping Elements:

- i. appropriate physical and chemical characteristics of materials to be used for sediment capping;
- ii. method for identifying and testing clean source material, including acceptance criteria for such sediment;
- iii. cap placement techniques;
- iv. determinations regarding potential propeller-driven erosion for capped area;
- v. selection of cap material suitable for colonization by aquatic organisms;
- vi. other performance standards in Section III.A. of this SOW;
- vii. rationale for extent of cap in areas with NAPL seep present;
- viii. demonstration of cost-effectiveness of cap;

Dredging Elements:

- i. methods and requirements for how dredged sediments will be handled, transported, and disposed;
- ii. proposed staging, material handling, or dewatering location(s) required;
- iii. design dredge depth and overcut allowances;
- iv. refined dredged material volumes;
- v. dredging techniques;
- vi. analysis of dredge cuts to ensure contaminated side slope do not remain exposed after dredging;
- vii. identification of upland landfill location for disposal of dredged sediments;
- viii. method and location for dewatering dredged sediments disposed of upland and disposal of associated water;
- ix. other performance standards in Section III.B. & D;
- x. methods for addressing short-term water quality impacts of dredging

Sheetpile Wall Elements:

- i. performance requirements;
 - ii. methods of installation
 - iii. driven depths
- d. Description/outline of proposed cleanup verification methods for remedial action construction, including compliance with ARARs that will be addressed in CQAP and OMMP and identify the conclusion of the CQAP activities and beginning of OMMP activities;

- e. Draft Compensatory Mitigation Plan, if necessary, which shall address the performance standards in Section III.E., including mitigation for unavoidable impacts to Thea Foss Waterway problem areas.

2. Intermediate Design Deliverables

If approved by the U.S. EPA, Settling Defendants may submit Intermediate Design Deliverables in the form of agreed-upon deliverables or technical memoranda to facilitate the efficient review and approval of the final remedial design by the U.S. EPA.

Intermediate Design Deliverables may include, a draft CQAP, draft OMMP, draft QAPP/FSP for remedial action construction, or may address other specific technical or design issues. Any remedial design data not available for submission as part of the Preliminary (30%) design, shall be submitted as an intermediate design deliverable. The Settling Defendants must also submit a response to Preliminary Design comments.

3. Prefinal (90%) and Final (100%) Designs

Settling Defendants shall submit the Prefinal Design when the design effort is ninety (90) percent complete and shall submit the Final Design when the design effort is one hundred (100) percent complete. The Prefinal Design shall fully address all comments made to the preceding design submittal(s). The Final Design shall fully address all comments made to the Prefinal Design and shall include reproducible drawings and specifications suitable for bid advertisement.

The Prefinal and Final Design submittals shall include those elements listed for the Preliminary Design, as well as the following (unless previously submitted as an Interim Design Element approved by EPA):

- a. Draft Construction Quality Assurance Plan (see Section IV.E. for detail);
- b. Draft Water Quality Monitoring Plan, which shall detail water quality monitoring requirements as specified by EPA to confirm that water quality standards as defined by substantive requirements of CWA §401 water quality certification for compliance with the requirements in CWA §404(b)(1) guidelines are met (or ensure approval to allow temporary exceedances of water quality standards has been received) during capping and dredging operations and where return-water from barges or de-watering (as appropriate) may affect the water column. The plan shall describe the specific water quality monitoring requirements, including: schedule; sampling locations; intervals; parameters; analytical methods; key contacts; reporting requirements (including daily reports); daily contacts for notifications of all exceedances; result summaries; and draft and final reports. A QAPP/FSP specific to water quality monitoring shall be included in this deliverable.
- c. Draft QAPP/HSP/FSP for remedial action construction activities (see Section IV.E.);

- d. Draft Permitting and Site Access Plan;
- e. Draft Operation, Maintenance, & Monitoring Plan (See Section IV.G.);
- f. Capital and Operation and Maintenance Cost Estimate (accuracy of +15 percent and -10 percent). This cost estimate shall refine the FS cost estimate to reflect the detail presented in the Final Design;
- g. Final Compensatory Mitigation Plan, if necessary;
- h. Final project Schedule for the construction and implementation of the remedial action which identifies timing for initiation and completion of all critical path tasks. The final project schedule will address the City's RA activities, the Standard Chemical cleanup project, other waterway activities such as redevelopment activities and discuss how they will relate to the head of the Thea Foss RA. The final project schedule submitted as part of the Final Design shall include specific dates for major milestones and completion of the project.

C. Remedial Action Work Plan

The Settling Defendants shall submit a Remedial Action Work Plan in accordance with Section VI, Paragraph 12 of the Consent Decree and Section V of the SOW which includes a detailed description of the remediation and construction activities, including how those construction activities are to be implemented by Settling Defendants and coordinated with EPA (e.g., site-monitoring, material staging and handling). When describing implementation of the remedial action, Settling Defendants shall identify discrete elements of the remedial action for purposes of monitoring construction activities as they occur. The following shall be considered examples of discrete elements of the remedial action under this SOW: remedial action (RA) units; dredging of adjacent RA units, and capping of adjacent RA units. The Remedial Action Work Plan shall include a project schedule for each major activity and submission of deliverables generated during the remedial action. The Settling Defendants shall submit a Remedial Action Work Plan in accordance with Section VI, Paragraph 12 of the Consent Decree and Section V of this SOW.

The Remedial Action Work Plan shall include, but not be limited to:

- 1. The schedule for completion of the Remedial Action;
- 2. Method for selection of the contractor;
- 3. Schedule for developing and submitting other required Remedial Action plans;
- 4. Final Water Quality Monitoring plan;
- 5. Methods for satisfying permitting requirements;
- 6. Tentative formulation of the Remedial Action team; and

7. Construction Quality Control Plan (by construction contractor).

The Remedial Action Work Plan also shall include the methodology for implementation of the Construction Quality Assurance Plan and a schedule for implementation of all Remedial Action tasks identified in the final design submittal and shall identify the initial formulation of the Settling Defendants' Remedial Action Project Team (including, but not limited to, the Supervising Contractor).

Settling Defendants shall submit the following deliverables with submission of the Remedial Action Work Plan (unless previously submitted and approved by EPA):

1. Final Construction Quality Assurance Plan (see Section IV.E. for detail);
2. Final Water Quality Monitoring Plan (with specific QAPP/FSP);
3. Final QAPP/Final HSP/Final FSP for remedial action construction activities (see Section IV.E.);
4. Final OMMP (see Section IV.G.).

D. Remedial Action Construction

The Settling Defendants shall implement the remedial action as detailed in the approved Final Design and Final Remedial Action Work Plan. The following activities shall be completed in constructing the remedial action.

1. Preconstruction Inspection and Meeting

The Settling Defendants shall participate with the U.S. EPA and the State in a preconstruction inspection and meeting to:

- Review methods for documenting and reporting inspection data, and compliance with specifications and plans including methods for processing design changes and securing EPA review and approval of such changes as necessary;
- Review methods for distributing and storing documents and reports;
- Review work area security and safety protocol;
- Demonstrate the construction management is in place, and discuss any appropriate modifications of the construction quality assurance plan to ensure that Site-specific considerations are addressed; and
- Conduct a Site walk-about/boat tour to verify that the design criteria, plans, and specifications are understood and to review material and equipment storage locations.

All inspections and meetings shall be documented by a Settling Defendant's designated contact and minutes shall be transmitted to all parties within seven (7) working days of the inspection or meeting.

2. Remedial Action Progress Meetings

Settling Defendants shall conduct RA progress meetings on a regular basis throughout the RA. The meetings shall be held at least monthly unless a less frequent schedule is agreed to by EPA. At a minimum, Settling Defendants shall address the following at progress meetings:

- General progress of construction with respect to RA schedule;
- Problems encountered and associated action items;
- Pending design, personnel or schedule changes requiring EPA review and approval;
- Results of any RA verification sampling and associated decisions and action items.

3. Prefinal Construction Inspections

Within thirty (30) days after Settling Defendants make preliminary determinations that construction is complete for each discrete element of the remedial action, as defined in the Final Remedial Action Work Plan, the Settling Defendants shall notify the U.S. EPA and the State for the purposes of conducting a pre-final inspection.

The pre-final inspections shall consist of a walk-through/boat tour inspection of the entire completed remedial action element with U.S. EPA. The inspection is to determine whether the project element is complete and consistent with the contract documents and the Remedial Action Work Plan, to review compliance with the CQAP, and to review field changes and change orders, and verify that SQOs have been achieved. The Settling Defendants shall certify that each discrete element of the remedy has been constructed to meet the purpose and intent of the specifications. Retesting shall be completed by Settling Defendants where deficiencies are revealed. Within seven (7) days of the inspection, a prefinal construction inspection letter/report shall be submitted to EPA. The pre-final construction inspection report shall include both a summary of the major CQAP results and field changes, as well as minutes from the inspection. The pre-final inspection report shall outline the outstanding construction items, actions required to resolve items, completion date for these items, and a proposed date for final inspection. The completion dates for the items identified in the prefinal construction report shall be within thirty (30) days of the pre-final construction inspection unless otherwise agreed to by EPA.

4. Final Construction Inspections

Within thirty (30) days after completion of any work identified in the pre-final inspection reports, the Settling Defendants shall notify U.S. EPA and the State for the purposes of conducting a final inspection of each discrete remedial action element. The final inspection shall consist of a walk-through inspection of each discrete element of the remedial action by U.S. EPA and the Settling Defendants. The pre-final inspection reports shall be used as a checklist with the final inspection focusing on the outstanding construction items identified in the prefinal inspections. Confirmation shall be made that outstanding items

have been resolved. Resolution of all outstanding items should be documented in a Final Construction Letter/Report within 30 days of the final inspection.

5. Reports

Settling Defendants shall follow U.S. EPA guidance for preparing Remedial Action Reports described in "Close Out Procedures for National Priorities List Sites", EPA 540-R-98-016, OSWER Directive 9320.2-09A-P, PB98-963223, January 2000 in submitting the following reports.

a. Remedial Action Construction Report

This report shall be submitted by the Settling Defendants when the construction is complete for all discrete remedial action elements, but before all performance standards have been attained (i.e., prior to achieving natural recovery and long-term performance standards for mitigation).

Within thirty (30) days of the last successful final construction inspection, Settling Defendants shall submit a Remedial Action Areas 23 and 24 Remedial Action Construction Report. In the report, a registered professional engineer and the Settling Defendants' Project Coordinator shall state that the remedial action has been constructed in accordance with the design and specifications. The written report shall include as-built drawings signed and stamped by a professional engineer, and other supporting documentation to demonstrate the CQAP was followed. The report shall contain the following statement, signed by a responsible corporate official of a Settling Defendant or the Settling Defendants' Project Coordinator:

"To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

b. Remedial Action Completion Report

This report shall be submitted by the Settling Defendants after construction is complete and all performance standards have been attained (including performance standards for mitigation areas), but where OMMP requirements will continue to be performed.

Within thirty (30) days of a successful demonstration that all performance standards have been attained, Settling Defendants shall submit a Remedial Action Areas 23 and 24 Remedial Action Completion Report. In the report, a registered professional engineer and a responsible corporate official or the Settling Defendants' Project Coordinator shall state the remedial action has been completed in full satisfaction of the requirements of the Consent Decree. The written report shall include a summary of all information (e.g., long-term monitoring data) demonstrating any performance standards not met in the Remedial Action Areas 23 and 24 Remedial Action Construction Report have been attained. The report shall also include documentation not previously submitted with the Remedial Action Areas 23 and 24 Remedial Action Construction Report verifying that performance standards, including SQO cleanup objectives, have been attained. The report shall contain

the following statement, signed by a responsible corporate official of a Settling Defendant or the Settling Defendants' Project Coordinator:

"To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

If, after review of the written report, EPA, after reasonable opportunity to review and comment by the State, determines that any portion of the Work has not been completed in accordance with this Consent Decree, EPA will notify Performing Defendant in writing of the activities that must be undertaken by Performing Defendant pursuant to this Consent Decree to complete the Work. EPA will set forth in the notice a schedule for performance of such activities consistent with the Consent Decree and the SOW or require the Performing Defendant to submit a schedule to EPA for approval pursuant to Section XI of the Consent Decree. Performing Defendant shall perform all activities described in the notice in accordance with the specifications and schedules established therein, subject to their right to invoke the dispute resolution procedures set forth in Section XIX (Dispute Resolution).

E. Performance Monitoring and Construction Quality Assurance

Performance monitoring shall be conducted to ensure that all performance standards are met, including cleanup verification methods and methods for determining compliance with performance standards and ARARs. The Construction Quality Assurance Plan under this task shall address all performance standards related to the remedial action construction, including achieving SQOs throughout RA 23 and 24. Long-term performance standards to be achieved after remedial action construction is completed shall be addressed in the Operations, Maintenance & Monitoring Plan described in Section IV.G. The Construction Quality Assurance Plan and supporting documents shall provide a mechanism to ensure that all performance standards for the remedial action construction are met. Supporting documents to the Construction Quality Assurance Plan shall include:

- Quality Assurance Project Plan
- Health and Safety Plan
- Field Sampling Plan

The documents listed in this section must be prepared and submitted as outlined in Section IV. of this SOW. Settling Defendants may update the pre-remedial design sampling plans (e.g., QAPP, FSP, HSP) previously prepared for the pre-remedial design effort completed to date for the Thea Foss and Wheeler Osgood Waterways and resubmit them for EPA's approval under this SOW. The required contents of each of these documents is described below.

1. Construction Quality Assurance Plan

Settling Defendants shall submit a Construction Quality Assurance Plan (CQAP) which describes the Site-specific components of the performance methods and quality assurance program which shall ensure that the completed project meets or exceeds all performance standards and design criteria, plans, and specifications, including achievement of SQOs.

The draft CQAP shall be submitted with the prefinal (90%) design and the final CQAP shall be submitted with the RA Work Plan. The CQAP shall contain, at a minimum, the following elements:

- a. Responsibilities and authorities of all organizations and key personnel involved in the design and construction of the remedial action, including EPA and other agencies.
- b. Qualifications of the Construction Quality Assurance (CQA) Official. Establish the minimum training and experience of the CQA Officer and supporting inspection personnel.
- c. Performance Standards and Methods. Describe all performance standards and methods necessary to ensure implementation of the remedial action construction, including mitigation, in compliance with ARARs and identified site-specific performance standards. Performance monitoring requirements shall be stated to demonstrate that best management practices have been implemented for dredging operations, transportation of dredged material, and proper cap placement techniques.
- d. Inspection and verification activities. Establish the observations and tests that will be required to monitor the construction and/or installation of the components of the remedial action. The plan shall include the scope and frequency of each type of inspection to be conducted. Inspections shall be required to measure compliance with environmental requirements and ensure compliance with all health and safety procedures.
- e. Sampling activities. Establish requirements for quality assurance sampling activities including the sampling protocols, sample size, locations, frequency of testing, acceptance and rejection data sheets, problem identification and corrective measures reports, evaluation reports, acceptance reports, and final documentation.
- f. Documentation. Reporting requirements for CQA activities shall be described in detail in the CQA plan. This shall include such items as daily summary reports, inspection data sheets, problem identification and corrective measures reports, design acceptance reports, and final documentation/storage. A description of the provisions for final storage of all records consistent with the requirements of the Consent Decree shall be included.
- g. Field Changes. Describe procedures for processing design changes and securing EPA review and approval of such changes to ensure changes conform to performance standards, ARARs, requirements of this SOW, are consistent with Cleanup Objectives and are protective of human health and the environment.

- h. Final Reporting. Identify all final CQAP documentation to be submitted to EPA in the Remedial Action Construction Report, or other deliverables and submissions.

2. Quality Assurance Project Plans

The Settling Defendants shall develop Site-specific Quality Assurance Project Plans (QAPP), covering sample analysis and data handling for samples collected in all phases of future Site work, based upon the Consent Decree and guidance provided by U.S. EPA. The QAPPs shall be consistent with the requirements of the EPA Contract Lab Program (CLP) for laboratories proposed outside the CLP. The QAPPs shall, at a minimum, include:

- Project Description
 - Facility Location History
 - Past Data Collection Activity
 - Project Scope
 - Sample Network Design
 - Parameters to be Tested and Frequency
 - Project Schedule
- Project Organization and Responsibility
- Data Management Plan
 - Describe tracking, sorting, retrieving data
 - Identify software for data storage,
 - Minimum data requirements & data format
 - Data backup procedures
 - Submission of data in format(s) acceptable to EPA
- Quality Assurance Objective for Measurement Data
 - Level of Quality Control Effort
 - Accuracy, Precision, and Sensitivity of Analysis
 - Completeness, Representativeness, and Comparability
- Sampling Procedures
- Sample Custody
 - Field Specific Custody Procedures
 - Laboratory Chain-of-Custody Procedures
- Calibration Procedures and Frequency
 - Field Instruments/Equipment
 - Laboratory Instruments
- Analytical Procedures
 - Non-Contract Laboratory Program Analytical Methods
 - Field Screening and Analytical Protocol
 - Laboratory Procedures

- Internal Quality Control Checks
 - Field Measurements
 - Laboratory Analysis
- Data Reduction, Validation, and Reporting
 - Data Reduction
 - Data Validation
 - Data Reporting
- Performance and System Audits
 - Internal Audits of Field Activity
 - Internal Laboratory Audit
 - External Field Audit
 - External Laboratory Audit
- Preventive Maintenance
 - Routine Preventive Maintenance Procedures and Schedules
 - Field Instruments/Equipment
 - Laboratory Instruments
- Specific Routine Procedures to Assess Data Precision, Accuracy, and Completeness
 - Field Measurement Data
 - Laboratory Data
- Corrective Action
 - Sample Collection/Field Measurement
 - Laboratory Analysis
- Quality Assurance Reports to Management

Settling Defendants shall submit a draft QAPP to U.S. EPA for review and approval. Final QAPPs, including any addenda, shall be revised in response to EPA comments. The initial QAPP shall be designed to encompass all phases of the project from design to confirmatory sampling, if possible. The initial QAPP shall specify all subsequent QAPP addenda anticipated for future project phases. The QAPPs should, at a minimum, address the following project elements: design sampling, PSDDA or DMMP sampling, upland disposal site sampling, construction monitoring sampling, water quality monitoring sampling, long-term monitoring sampling, and mitigation sampling.

3. Health and Safety Plan

The Settling Defendants shall develop a health and safety plan which is designed to protect on-Site personnel and area residents from physical, chemical, and all other hazards posed by this remedial action. The safety plan shall develop the performance levels and criteria necessary to address the following areas.

- Facility Description
- Personnel

- Levels of protection
- Safe work practices and safe guards
- Medical surveillance
- Personal and environmental air monitoring
- Personal protective equipment
- Personal Hygiene
- Decontamination--personal and equipment
- Site work zones
- Contaminant control
- Contingency and emergency planning, including SPCC
- Logs, reports, and record keeping

The safety plan shall follow the U.S. EPA guidance and all OSHA requirements as outlined in 29 C.F.R. 1910 and 1926. Settling Defendant may utilize existing Health and Safety Plan project documents (e.g., pre-remedial design HSP) or other company/contractor HSP provided that Settling Defendant demonstrates the HSP has been modified, as necessary, or otherwise sufficiently addresses the activities covered by this SOW.

4. Field Sampling Plan

The Settling Defendants shall develop a field sampling plan (as described in "Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA", October 1988). The Field Sampling Plan should supplement the QAPP and address all sample collection activities.

F. Permitting and Site Access Plan

Settling Defendants shall prepare a Permitting and Site Access plan to demonstrate how the Design plans will comply with the permitting requirements identified in the RD Work Plan and shall address any real property and easement requirements. The plan shall provide a strategy and appropriate information for obtaining agreements for access to the site or associated areas as necessary for the implementation of the remedial action.

G. Operation, Maintenance & Monitoring Plan

Settling Defendants shall submit for EPA approval a post-remedial action Operation, Maintenance, & Monitoring Plan (OMMP) and QAPP (or amendments to the remedial design QAPP). The objectives of the OMMP shall include:

- Long-term confirmation of maintaining SQOs in RA 23 and 24 after remedial action;
- Evaluating the long-term effectiveness of source control;
- Evaluating enhancement of habitat function and fisheries resources;
- Evaluating the long-term effectiveness of any required habitat mitigation.

The Settling Defendants shall prepare an OMMP to cover both implementation and long-term maintenance and monitoring of the remedial action, including mitigation areas. An initial draft OMMP shall be submitted no later than with the Pre-Final (90%) Design. The final OMMP shall be submitted to the U.S. EPA no later than the Remedial Action Work Plan submittal. The final OMMP shall address all comments made to the draft OMMP and will be

subject to EPA approval. After results for each monitoring event are reported, the final OMMP will be reviewed and revised as necessary, under EPA direction and approval. The OMMP shall evaluate and include the following types of monitoring, as appropriate, to achieve the monitoring objective of each element of the remedial action:

- bathymetry
- sediment chemistry
- sediment bioassays, if necessary
- cap and benthic recolonization studies
- fish tissue analysis
- fish health indicators
- sediment profile cameras
- ground-water chemistry

EPA may decide to conduct a Baywide fish study to determine the impact of remedial actions on fish. If a Baywide study is conducted, the OMMP may be modified accordingly. Other types of monitoring may also be identified during the development of the OMMP. The OMMP shall be composed of the following elements:

1. Description of normal operation and maintenance:
 - a. Description of tasks to achieve each monitoring objective;
 - b. Description of tasks for maintenance;
 - c. Schedule showing frequency of each OMMP task.
2. Description of routine monitoring and laboratory testing:
 - a. Description of monitoring tasks;
 - b. Description of required data collection (including sample type, number, location and frequency), sampling procedures (including collection, preservation, handling and documentation), laboratory tests (including methods and detection limits), and their interpretation;
 - c. Required quality assurance and quality control, HSP, & FSP (or addenda);
 - d. Schedule of monitoring frequency; and
 - e. Description of verification sampling procedures if SQOs or performance standards are exceeded in routine monitoring.
3. Corrective Action:
 - a. Description of corrective action to be implemented in the event that cleanup or performance standards are not met (e.g., if exceedances of SQOs are detected, identify additional sampling and/or analysis to be conducted by Settling Defendants to identify, to the maximum extent possible, the source of the contamination. If the source is from failure of any of the capped areas, the disposal site or exposure of subsurface contamination, then corrective action under this SOW and CD shall be specified to address the contamination); and
 - b. Schedule for implementing these corrective actions.
4. Description of procedures for a request to U.S. EPA to reduce the frequency of or discontinue monitoring.

5. Records and reporting mechanisms required:
 - a. Laboratory records;
 - b. Records for long-term monitoring costs;
 - c. Documentation to comply with CERCLA 5-year Review Reporting Requirements;
 - d. Reports to State or Federal Agencies.

V. SCHEDULE OF DELIVERABLES

The schedule for notification to EPA or submission of major deliverables to EPA is described below. If the date for submission of any item or notification required by this SOW occurs on a weekend or state or federal holiday, the date for submission of that item or notification is extended to the next working day following the weekend or holiday. A schedule identifying the City's remedial activities in contiguous areas shall be incorporated into the schedule submitted by the Settling Defendants.

#	Submission	Due Date
1	Remedial Design Work Plan incl. RD QAPP/HSP/FSP	Within thirty (30) days after notice of authorization to proceed pursuant to Paragraph 10 of Consent Decree
2	Monthly Progress Reports	As specified in Paragraph 32 of the Consent Decree
3	Preliminary Design (30 percent) incl. Basis of Design Report, Additional Field Sampling Results (if available), description of verification methods, & Draft Compensatory Mitigation Plan	Sixty (60) days after U.S. EPA's approval of final RD Work Plan
4	Intermediate Design Deliverables incl. Additional Field Sampling Results not available at 30% design, response to Preliminary Design comments	Thirty (30) days after U.S. EPA's approval of Preliminary Design.
5	Prefinal Remedial Design (90 percent) including Draft CQAP, Draft QAPP, HSP, FSP for RA Construction, Permitting and Site Access Plan, Draft Water Quality Monitoring Plan, Draft OMMP, Final Compensatory Mitigation Plan, & Final Project Schedule	Sixty (60) days after U.S. EPA's approval of Intermediate Design.
6	Final Remedial Design (100 percent)	Forty-five (45) days after receipt of EPA's comments on the Prefinal Design
7	Notification for Remedial Action Start	Provide notification to EPA forty-five (45) days prior to initiation of fieldwork to allow EPA to coordinate field oversight activities
8	Remedial Action Work Plan incl. Final CQAP, Water Quality Monitoring Plan, Final QAPP/HSP/FSP, Final OMMP	Within forty-five (45) days after approval of the Final Remedial Design submittal
9	Award Remedial Action Construction Contractor(s)	Within thirty (30) days after approval of the Final Remedial Design submittal
10	Pre-Construction Inspection and Meeting	Fifteen (15) days after award of RA Construction Contractor(s)

#	Submission	Due Date
11	Initiate Construction of Remedial Action	Within thirty (30) days after approval of the Remedial Action Work Plan, consistent with environmental windows for in-water work. EPA shall not approve the RA Work Plan until the Consent Decree has been entered.
12	Completion of Construction	As approved by EPA in RA construction schedule
13	Prefinal Construction Inspection/Meeting	No later than thirty (30) days after completion of construction for each discrete element of the remedial action
14	Prefinal Construction Inspection Letter/Report(s)	Within seven (7) days after the prefinal construction inspection for each discrete element of the remedial action
15	Final Construction Inspection(s)	Within thirty (30) days after completion of work identified in each prefinal construction inspection letter
16	Operation, Maintenance & Monitoring Plan	No later than Remedial Action Work Plan submittal
17	Final Construction Letter/Report(s)	Within thirty (30) days after each final construction inspection/meeting
18	Pre-certification Inspections	Within thirty (30) days after each of: Remedial Action Construction, Remedial Action Completion, and Completion of Work has been fully performed.
19	Remedial Action Construction Report	Within thirty (30) days after pre-certification inspection
20	Remedial Action Completion Report	Within thirty (30) days after Remedial Action Objectives, including SQOs for natural recovery areas, have been obtained
21	OMMP Monitoring Reports	No later than 45 days after OMMP sampling conducted

- a) Due dates shown are for initial draft deliverable. Revised deliverables are due 30 days from EPA comments, unless otherwise indicated by EPA. Documents become final upon approval by EPA.

- b) Consistent with Section IV of the Consent Decree, days are calendar days. If due dates fall on a weekend or holiday, deliverables will be submitted to EPA on the next business day.

Table 1—Sediment Quality Objectives

Chemical	Sediment Quality Objective ^a
Metals (mg/kg dry weight; ppm)	
Antimony	150 ^A
Arsenic	57 ^B
Cadmium	5.1 ^B
Copper	390 ^L
Lead	450 ^B
Mercury	0.59 ^L
Nickel	>140 ^{A,B}
Silver	6.1 ^A
Zinc	410 ^B
Organic Compounds (µg/kg dry weight; ppb)	
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAH)	
Naphthalene	2,100 ^L
Acenaphthylene	1,300 ^{A,B}
Acenaphthene	500 ^L
Fluorene	540 ^L
Phenanthrene	1,500 ^L
Anthracene	960 ^L
2-Methylnaphthalene	670 ^L
High Molecular Weight PAH (HPAH)	
Fluoranthene	17,000 ^L
Pyrene	2,500 ^L
Benz[a]anthracene	3,300 ^L
Chrysene	1,600 ^L
Benzo[a]pyrene	2,800 ^L
Indeno[1,2,3-cd]pyrene	3,600 ^L
Dibenz[a,h]anthracene	1,600 ^L
Benzo[ghi]perylene	690 ^L
	230 ^L
	720 ^L
Chlorinated Organic Compounds	
1,3-Dichlorobenzene	170 ^{A,L,B}
1,4-Dichlorobenzene	110 ^B
1,2-Dichlorobenzene	50 ^{L,B}
1,2,4-Trichlorobenzene	51 ^A
Hexachlorobenzene (HCB)	22 ^B
Total Polychlorinated Biphenyls (PCBs)	300 [*]
Phthalates	
Dimethyl phthalate	160 ^L
Diethyl phthalate	200 ^B
Di- <i>n</i> -butyl phthalate	1,400 ^{A,L}
Butyl benzyl phthalate	900 ^{A,B}
Bis[2-ethylhexyl]phthalate	1,300 ^B

Table 1—Sediment Quality Objectives (Continued)

Chemical	Sediment Quality Objective ^a
Di- <i>n</i> -octyl phthalate	6,200 ^B
Phenols	
Phenol	420 ^L
2-Methylphenol	63 ^{A,L}
4-Methylphenol	670 ^L
2,4-Dimethylphenol	29 ^L
Pentachlorophenol	360 ^A
Miscellaneous Extractable Compounds	
Benzyl alcohol	73 ^L
Benzoic acid	650 ^{L,B}
Dibenzofuran	540 ^L
Hexachlorobutadiene	11 ^B
N-nitrosodiphenylamine	28 ^B
Volatile Organic Compounds	
Tetrachloroethene	57 ^B
Ethylbenzene	10 ^B
Total xylenes	40 ^B
Pesticides	
p,p'-DDE	9 ^B
p,p'-DDD	16 ^B
p,p'-DDT	34 ^B

^a Lowest apparent effects threshold among amphipod, oyster, and benthic infauna:

- A - amphipod mortality bioassay
- L - oyster larvae abnormality bioassay
- B - benthic infauna
- * - The sediment quality objective for human health was revised in EPA's 1997 ESD to a PCB SQO of 300 ug/kg.

TABLE 2 – Biological Criteria to be used for Thea Foss Waterway RD/RA

Bioassay	Negative Control Performance Standard	Reference Sediment Performance Standard	Sediment Quality Standards Interpretation Endpoints (Hylebos RD/RA performance criteria)	Minimum Cleanup Level/SIZ Interpretation Endpoints
Amphipod (M expressed as %)	$M_C < 10\%$	$M_R < 25\%$	$M_T > 25\%$ Absolute and M_T vs M_R SD ($p=.05$)	$M_T - M_R > 30\%$ and M_T vs M_R SD ($p=.05$)
Larval (N expressed as actual counts)	$N_C \geq 0.70$	$N_R \geq 0.65$ (per QA/QC guidance)	$N_T/N_C + N_R/N_C < 0.85$ and N_T/N_C vs N_R/N_C SD ($p=.10$)	$N_T/N_C + N_R/N_C < 0.70$ and N_T/N_C vs N_R/N_C SD ($p=.10$)
<i>Neanthes</i> growth (MIG in mg/ind/d dry)	$M_C < 10\%$ and $MIG \geq 0.72$ mg/ind/d (dry) (or Case By Case)	$MIG_R \geq 0.80$	$MIG_T/MIG_R < 0.70$ and MIG_T vs MIG_R SD ($p=.05$)	$MIG_T/MIG_R < 0.50$ and MIG_T vs MIG_R SD ($p=.05$)
Microtox	Case By Case	Case By Case (PSDDA, BLD $\leq 20\%$)	$ML_T + ML_R < 0.80$ and ML_T vs ML_R SD ($p=.05$)	No Microtox MCUL criteria are established SQS level hit is valid for 2 hit rule

M = mortality, N = normals, I = initial count, MIG = mean individual growth rate, BLD = blank-corrected light decrease
SD = statistically different, NOCN = no other conditions necessary, N/A = not applicable
Subscripts: R = reference sediment, C = negative control, T = test sediment

DRAFT SMS EVALUATION ENDPOINTS (BIOASSAYS), Ecology 6/25/98

FIGURE 1 to Statement of Work for Remedial Design, Remedial Action, and Long-term Monitoring, Remedial Action Areas 23 and 24

